

SMOKE SIGNALS

For Radio Amateurs • By Radio Amateurs

Published Monthly Since 1969 • Our 26th Year
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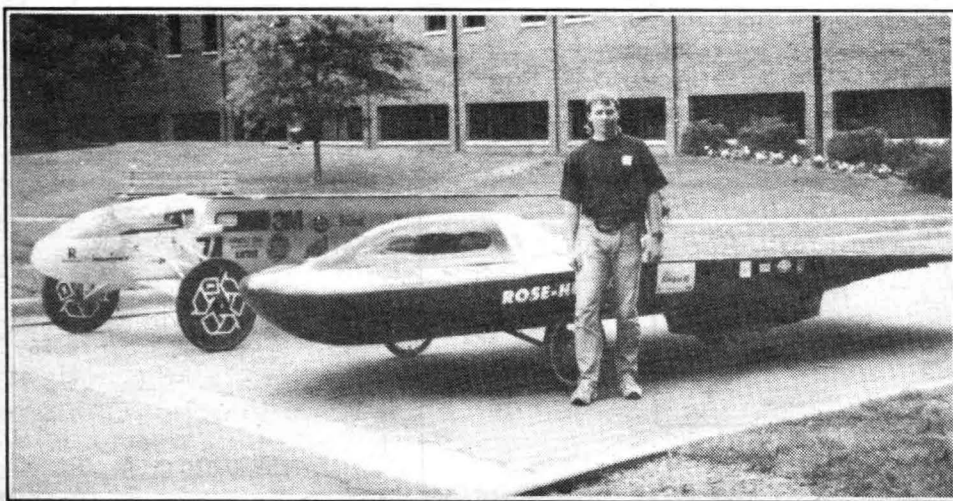
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Ham Radio Crosses the Mid-West With Solar Power

By Kenny Dicks, KE9CS
Route 3, Box 180A
Colfax WI 54730



Mike Ley, N9GQU, of Menomonie, WI, stands in front of Solar Phantoms II and III. The Solar Phantom III (foreground) finished 14th of 38 entries in the recently-completed Sunrayce 95 from Indianapolis, Indiana, to Golden, Colorado. Mike is currently a Junior at Rose-Hulman Institute of Technology, Terre Haute, Indiana.

- Photo by KB8JQJ

Ham Radio supplied much of the communications for the recently completed "SUNRAYCE 95". This year the Sunrayce ran 1,100 miles from Indianapolis, IN to Golden, Co and many of the support teams used 2 meter radio equipment and local repeaters to stay in touch with the race cars. Spectators at the daily start and finish lines were also kept informed of team status by local hams at check points along the course.

Mike Ley, N9GQU, of Menomonie, WI, was the ham radio coordinator for the Rose-Hulman Institute of Technology team. A ham for 8 years, Mike knew the value of dependable communications and by race day was one of 18 hams on the 22 man "Solar Phantom" team, including driver Dennis Brylow, N9ZRF of Glendale, WI.

For safety reasons, the support teams and equipment do not normally travel the same route as the race cars. "Without ham radio, our support trailer would have been out of contact with the car for most of the race," said Mike, "repeaters saved the day for us more than once."

This year's Rose-Hulman car, Solar Phantom III, was a new car, built in 14+ months by a team of over 40 RHIT students. With 38 teams participating, this

new "unproven" car placed 14th overall, with a best one-day finish of 10th place.

Phantom facts include:

Length, 19.6 ft;
Weight, 1,100 lbs;
Top speed, 65 mph;
Motor, 10 Hp DC brushless;
Batteries, 7- 12 volt lead acid;
Solar cells, 960 Siemens.

The 9-day race started out with beautiful solar car weather, but after the mid-race rest day the clouds moved in. The second half of the race was plagued by rain and heavy clouds. The rainy weather on the last day prevented many of the teams from reaching the finish line before the official finish line moved in from the rain.

Wisconsin was not represented, but Minnesota placed two teams in the top ten. University of Minnesota placed 2nd, 18 minutes behind MIT, and Mankato State and Winona State Universities placed 9th in the race. Mike and the team at RHIT, Terre Haute, IN placed 14th and I am sure they would like every one to know that they beat in-state rival Purdue University which placed 17th.

Oklahoma Hams Lauded

Oklahoma Senator Don Nickles has entered into the *Congressional Record* a tribute to volunteers who helped in the aftermath of the April bombing of the Murrah Federal Building in Oklahoma City, including Amateur Radio operators.

Citing an "outpouring of love, selfless effort, and resources," Nickles said the community is "indebted to those volunteers who created (a) silver lining" to the dark cloud of the tragedy.

"Specifically," Nickles said, "Amateur Radio operators provided an essential service to rescue operations. Within minutes of the attack, operators were on the scene providing an emergency communication network that allowed for the organization of supplies as well as firemen, policemen, and rescue crews from countless communities.

"Their contribution of 360 hours of service was made possible by donations from electronics companies such as the Oklahoma Community (Communications) Center," Nickles said.

Sen Nickles's remarks were published in the August 11, 1995, *Congressional Record*, thanks in part to the efforts of ARRL Oklahoma Public Information Coordinator Thomas M. Webb, WA9AFM. An article by Webb about Amateur Radio's role in this matter appears in September *QST*.

Also helping, in Washington, was George Stephens, WB3DAC, who is on the staff of the Senate Republican Policy Committee, of which Sen Nickles is chairman. (Stephens also is president of the Capital Hill Amateur Radio Society, W3USS.)

- ARRL Bulletin ARLX043, 8/15/95

Dream Odyssey



A bus converted to a "space shuttle" is the basis for an adventure for fifth-grade students in Eau Claire. Read how Eau Claire radio amateurs helped with this scientific project - and how some youngsters became hams as a result - in Carol Ceraso's story on page 7 of this issue.

- Photo courtesy Carol Ceraso/N9TUA

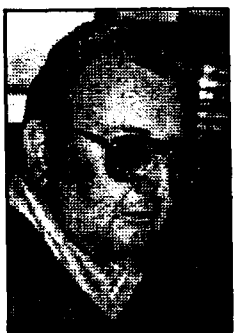
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FCC Proposes Office Closings

Federal Communications Commission Chairman Reed Hundt has proposed actions to save money, including personnel reductions and facility closings.

Hundt said that although the FCC currently has fewer than its authorized personnel ceiling of 2,271, steps would be taken to reduce the number of FCC employees to about 2,050. In addition to retirements and buyouts, the closing of some regional and field offices would result in about 120 jobs lost, of which some 50 would be involuntary. Hundt said these 50 "reductions in force," or RIFs, would be the first in FCC history.



WHAT'S HAPPENING

✕ Swapfests and Other Social Events ✕ Club Meetings
✕ Amateur Radio Exam Schedules

EDITED BY KENNETH A. EBNETER, K9EN, 822 WAUONA TRAIL, PORTAGE, WI 53901

Swapfests and Other Social Events

SATURDAY, SEPTEMBER 2, 1995. It's true! Mighty little Hayward in northern Wisconsin is holding its first Hamfest on the LABOR DAY week-end from 8AM to 2PM. Free Coffee. Pretty good food. Tables \$10. Tickets \$5.00 Write John Kruk N9UPC PO Box 13160 Hayward, WI 54843 or call 715-634-4940. We have rented the Armory and they do NOT allow tail-gating. Sorry! All sales inside ONLY.

SUNDAY, SEPTEMBER 10, 1995. Iowa Radiofest, Dubuque Hamfest & Computer Expo., Tri-State Blind Society, 3333 Ashbury Road, Dubuque, IA. Contact: Larry Pensel, W0UST, 619 Kaufmann Ave., Dubuque, IA 52001, (319) 588-1085, Loren Heber, N0YHZ, 9479 Lauderville Road, Dubuque, IA 52003. (319) 583-5755, or J. Ehlers, NONLU, (319) 583-1016.

SUNDAY, OCTOBER 15, 1995. Kettle Moraine Radio Amateurs Swapfest, Waukesha County Expo Center. Contact: KMRA Swapfest, PO Box 411, Waukesha, WI 53187-0411.

SATURDAY, NOVEMBER 4, 1995. 11th annual Friendlyfest 8:00 a.m. to 1:00 p.m. at the Waukesha County Expo Center, Waukesha, WI. Contact Milwaukee Repeater Club, Inc., PO Box 2123, Milwaukee, WI 53201.

SUNDAY, NOVEMBER 4, 1995. Fox Cities Hamfest, Starlite Club, Hwy 55 North of Kaukauna. Contact: Dan Vanevenhoven, N9LVS, 2410 E Newberry Ct., Appleton, WI 54915. (414) 739-5101.

SUNDAY, JANUARY 14, 1996. 24th Annual Midwinter Swapfest, Waukesha County Expo Center Forum, Waukesha, WI. Contact: WARAC Swapfest, PO Box 1072, Milwaukee, WI 53201.

TUESDAY, FEBRUARY 27, 1996. Red Cedar Repeater

Association, Inc., American Legion Post 53, 634 Water St., Eau Claire, WI. Contact: Steve Hart, KA9OMC, E616 810th Ave., Knapp, WI 54749. (715) 665-2374.

SUNDAY, MARCH 10, 1996. SEWFARS Swapfest, Waukesha County Expo Center, Waukesha, WI. Contact: SEWFARS PO Box 102, Delafield, WI 53018. (414) 789-1034.

See also the back page and flyer ads for additional information on many of these events.

As a service to our readers, this section of Badger State Smoke Signals is available without charge to list your upcoming Swapfest, Hamfest, dinner, picnic, party or other event of interest to Radio Amateurs in Wisconsin and nearby areas. Send information on your event to Kenneth A. Ebneter, K9EN, 822 Wauona Trail, Portage, WI 53901. In addition, space is available at attractive rates on our advertising pages. For information on rates and requirements for our advertising pages, please contact K9ZZ or K9EN.

Club Meetings



Due to space limitations we cannot always carry the full listing of Wisconsin and area club meetings. Please save the following listings for your future reference. We hope to have the full listing at least three times a year, and will carry any changes or additions between full listings.

ARROWHEAD RADIO AMATEUR CLUB, INC.
(Superior, WI)

The monthly meeting of the ARAC is held on the second Tuesday of the month at the WITC Conference Center, 600 N. 21st Street, Superior, Wisconsin, at 7:30 p.m. Board meetings are held prior to the regular meeting.

BADGER AMATEUR RADIO SOCIETY
(W9YT - U. W. - MADISON)

Monthly while school in session - 2nd Tue. - 5:30 p.m. - B-265G, Electrical Engineering Bldg. For more information call (608) 262-1142.

CENTRAL WISCONSIN RADIO AMATEURS, LTD.
(STEVENS POINT)

Second Wed..

EAU CLAIRE AMATEUR RADIO CLUB

2nd Tue. - 7:30 p.m. - Parks and Recreation Bldg., Oxford and 1st Streets, Eau Claire. Hams, guests welcome. Travelers welcome on wide area club repeater K9UXP, 146.31/91.

FOUR LAKES AMATEUR RADIO CLUB (MADISON WI)

First and third Tues - 7:30 p.m. - Red Cross Bldg., 4860 Sheboygan Ave., room "C" downstairs. It is the next building west of the Hill Farms State Office building. The meetings start promptly at 7:30 pm.

FOX CITIES AMATEUR RADIO CLUB

Third Mon. - 7:00 p.m. - Roosevelt Jr. High School, 318 E. Brewster St., Appleton. Info: (414) 766-3886.

GREATER MILWAUKEE DX ASSOCIATION

Fourth Mon. of the month at 7:30 p.m. Contact any GMDX member or Dan Reese, N9XX, (414) 529-9806 (before 9 p.m. please) for meeting location.

GREEN BAY MIKE AND KEY CLUB

Second Thur. 7:30 pm - Media Services area of the J. M. Science Building at St. Norbert College in DePere.

GREEN FOX AMATEUR RADIO CLUB

Third Mon. - 7:30 p.m. - Green Lake Town Hall, int. of county hwy. K and N.

KETTLE MORAINE RADIO AMATEURS

Second Fri., 7:30 p.m. at the Waukesha County Technical College, Campus Science Building, Room 102. Talk-in on the N9KS 147.39 repeater.

LAKESHORE RPTR. ASSN.

Last Tue., Jan., Apr., Jul., & Oct., 7:30 p.m. Red Cross Bldg., 4521 Taylor Ave., Racine, WI.

M & M AMATEUR RADIO CLUB

General meeting held second Thursday each month at 7:00 p.m. at Menominee BAMC 4th floor, Tenth Ave., Menominee, MI 49858.

MADISON AREA REPEATER ASSN

Here are the meeting dates for MARA for 1994: September 12, 1994, November 14, 1994

MANITOWOC COUNTY RADIO AMATEURS

Directors Meeting: First Wed. Held at 7:30 p.m. in the basement, Manitowoc City Hall, 817 Franklin ST., Manitowoc.

General meeting: Second Wed. Held at 7:30 p.m. at Associated Manitowoc Bank, corner of 10th and Franklin Streets.

MENOMONEE FALLS AMATEUR RADIO CLUB

Last Tue. - Doors open 7:30 p.m., meeting begins 8:00 p.m. - Security Savings and Loan, Menomonee Falls. Amateurs and guests welcome.

MILWAUKEE RADIO AMATEURS CLUB

Last Thursday evening, Wauwatosa Savings and Loan (lower level) at 7500 W. State St. in Wauwatosa. Meetings begin at 7:30 pm 12 months of the year.

Badger State Smoke Signals

*Amateur Radio
Education and Information*

CHAIRMAN: Kenneth A. Ebneter, K9EN, 822 Wauona Trail, Portage, WI 53901. Telephone (608) 742-3560.

EDITOR: Jim Romelfanger, K9ZZ, 412 1/2 Ash Street, Baraboo, WI 53913. Telephone (608) 356-4031.

TREASURER: Jim Decker, WB9UQT, P.O. Box 337, Baraboo, WI 53913-0337.

CONTRIBUTING AUTHOR: Richard R. Regent, K9GDF, 5003 South 26th Street, Milwaukee, WI 53221.

Subscriptions

1 year	(12 issues)	\$12.00
2 years	(24 issues - save \$2.00)	\$22.00
3 years	(36 issues - save \$4.00)	\$32.00

Special club package reduced rates are available. For information, contact Ken Ebneter, K9EN.

When to Send It

The closing date for each issue is the first of the month for the next month's issue. For example, the closing date for the June issue is May 1.

The only exception is for participating clubs. Participating clubs are requested to send their material no later than FIVE DAYS after the club's meeting. For example, if a club meets on the 4th of the month, the material should be sent no later than the 9th of that

month. This material is to be sent to the Editor.

Where to Send It

Address changes and corrections should be sent to Ken Ebneter.

Editorial material, photographs, feature articles, display ads, and exchange papers should be sent to Jim Romelfanger.

Inquiries about advertising should be directed to Ken Ebneter.

Swapfest information should be sent to Ken Ebneter. Swapfest ads should be sent to Jim Romelfanger.

Subscriptions should be sent, with check or money order, to Jim Decker.

Conditions for Reprinting or BBS Posting Material from Badger State Smoke Signals

Permission is hereby granted to reprint articles or posting articles on radio or telephone bulletin boards from *Badger State Smoke Signals*, providing credit is given to the original author, publication in which the article first appeared, and to *Badger State Smoke Signals*. THIS CREDIT IS MANDATORY, AND NO MATERIAL MAY BE PRINTED OR POSTED UNLESS IT IS GIVEN. This newspaper is produced by volunteer Radio Amateurs, and is non-profit. This newspaper is mailed from Portage, WI 53901. *Badger State Smoke Signals* is incorporated as a Wisconsin non-stock, non-profit organization.

Editorial Disclaimer

The opinions expressed in editorials, guest editorials, columns, articles, and letters from readers are the opinions of the authors only, and do not, unless otherwise stated, express or imply endorsement by *Badger State Smoke Signals*, or by any other individual or organization.

NORTHWOODS ARC (RHINELANDER WI)

Third Tue.. Doors open at 7:00 p.m. Meeting at 7:30 p.m. South Park School, Rhinelander, WI. Talk-in on 146.93/.34. All interested visitors to the Northwoods are welcomed.

OSKOSH AMATEUR RADIO CLUB (see Winnebago ARC listing)

OZAUKEE RADIO CLUB

Second Wed. - 7:30 p.m. - Grafton Mulitpurpose Senior Center.

QCWA - WISCONSIN CHAPTER #55 Contact Erwin Froelich, W9RZW, Treasurer, Rte 1 Box 177D, Pine River WI 54965. For information about meeting dates or joining QCWA Chapter #55. The Wisconsin Chapter holds Spring and Fall dinner meetings.

QCWA - SOUTHEAST WISCONSIN CHAPTER #162 Meets third Mon. monthly, 7:30 p.m., Around the Clock Restaurant, 3012 Rapids Drive, Racine.

RACINE MEGACYCLE CLUB

Second Mon., 7:30 p.m., Red Cross Bldg., 4521 Taylor Ave., Racine, WI

RED CEDAR REPEATER ASSOCIATION, INC.

4th Tue. - 7:30 p.m., September, October, November, January, March and April. Peppermill Restaurant, Thunderbird Mall North, Menomonie, WI. Guests welcome.

RIVERLAND AMATEUR RADIO CLUB

First Tue. - 7:00 p.m. - Onalaska Community Center, Onalaska WI.

ROCK RIVER RADIO CLUB

Monthly - first Tue. - 7:00 p.m. at Dodge County Sheriff's Department, 141 N. Main, Juneau, WI.

ARES Net: 146.04/146.64 Mon.s at 7:30 p.m. Sat.s on 7277 KHz at 10:30 a.m.

SHEBOYGAN COUNTY AMATEUR RADIO CLUB

Second Tue. - 7:00 p.m. - Sheboygan Red Cross/Boy Scout Bldg., 2032 Erie Ave.

SOUTH MILWAUKEE AMATEUR RADIO CLUB

First Wed. - Legion Post 434, Shepard Ave., Oak Creek WI. Auctions in March and October.

TAYLOR COUNTY AREA AMATEUR RADIO CLUB (TCAARC) MEDFORD

Usually the 1st Thur. of the month at 7:00 PM sharp. Usual location: emergency government meeting room/Red Cross office, basement of Sheriff's Annex to Taylor County Courthouse, 2nd and Ogden Sts., Medford, WI. Talk-in on 147.15 (+600) repeater. Amateurs & guests are welcome. ARES Net, Wed. nights at 8:30 PM on 147.15 (+600) repeater. For info contact: Mike Schoenfuss, N9GHZ, P.O. Box 401, Abbotsford, WI 54405, phone (715) 223-3996.

TRI-COUNTY AMATEUR RADIO CLUB

Meetings held at members homes. Usually monthly on Sunday afternoon. Contact: Glenn Eisenbrandt, (414) 563-6502 or John Saterlee, (414) 563-6381.

WASHINGTON COUNTY AMATEUR RADIO CLUB

Second Thursday, 7:30 p.m., Washington County Court House. Net on Thursdays at 7:30 p.m. on 146.73.

WATERTOWN AMATEUR RADIO CLUB

First Thur. of the month at 7:00 p.m., The Watertown Public Library, 100 S. Water St., Watertown, WI.

WAUPACA AMATEUR RADIO CLUB

First Sat. in March, June, September and December, at 9:30 a.m. at the Waupaca Fire Station in downtown Waupaca.

"CQ First Tue." - A social gathering and dutch treat luncheon at the King's Table in King, WI, on Highway QQ just south of highways 10 and 54 on the west side of Waupaca.

WEST ALLIS RADIO AMATEUR CLUB

Second Tue. - 8:00 p.m. - St. Peters Episcopal Church, 7929 Lincoln Ave. Entrance is at rear of building on alley.

THE WINNEBAGO AMATEUR RADIO CLUB

(Formerly the Oshkosh Amatur Radio Club)

The Winnebago ARC welcomes all Amateurs and interested persons to join us at the Oshkosh Armory on Armory Place, Oshkosh, WI. Meetings are held the

third Sunday each month at 1600 hrs. Talk in on 147.24 repeater.

For further information contact KB9IME, Dan Lenz, at (414) 233-7145.

WISCONSIN ASSOCIATION OF REPEATERS

Meetings are held Quarterly, with time and location to be announced. Repeater licensees, trustees, and sponsors are urged to attend W.A.R. meetings. All interested parties are welcome, as well.

WISCONSIN RAPIDS AMATEUR RADIO CLUB

Third Wednesday, 7:00 p.m. Emergency Government Office, Wood County Court House. Talk-in on 146.79 for entry into the building.

Net on Sundays at 8:00 p.m. on 146.79.

WISCONSIN VALLEY RADIO ASSOCIATION (WAUSAU)

First Tue. - 7:30 p.m. - Location varies; info on 146.04/64, Wausau.

YELLOW THUNDER AMATEUR RADIO CLUB (BARABOO)

Days rotate: Scheduled meeting dates: The following is the YTARC meeting schedule for 1995.

Thursday September 14, 1995

Tuesday October 17, 1995

Wednesday November 15, 1995

Thursday December 14, 1995

All meetings will be at the Baraboo Civic Center, room 14, unless otherwise noted. Starting time for the monthly club meeting is 7:30 p.m.. The program start time after the meeting is 8:00 p.m., with a one hour limit.

Let Badger State Smoke Signals know your club's meeting dates, and we will let our readers know of your meetings and activities. There may be Amateurs in your area interested in joining your club, or members of other clubs interested in making an interclub visit.

The Test Point



Amateur Radio Examination Locations and Schedules in the Wisconsin Area

September 2, 1995	Oak Creek, WI (SWAT/MRAC)
September 2, 1995	Racine, WI
September 9, 1995	Madison, WI
September 9, 1995	Redgranite, WI
September 10, 1995	Dubuque, IA
	Dubuque Hamfest
September 20, 1995	West Allis, WI (MRAC)
September 16, 1995	Loves Park, IL
September 30, 1995	Wauwatosa, WI (MRAC)
September 30, 1995	Tomahawk, WI
October 7, 1995	Racine, WI
October 7, 1995	River Falls, WI
October 7, 1995	Oak Creek, WI (SWAT/MRAC)
October 14, 1995	Madison, WI
October 14, 1995	Redgranite, WI
October 18, 1995	West Allis, WI (MRAC)
October 21, 1995	Loves Park, IL
October 21, 1995	Medford, WI
October 28, 1995	Wauwatosa, WI (MRAC)
October 28, 1995	Tomahawk, WI
November 4, 1995	Racine, WI
November 4, 1995	Oak Creek, WI (SWAT/MRAC)
November 4, 1995	Menomonie, WI
November 11, 1995	Marshfield, WI
November 11, 1995	Madison, WI
November 11, 1995	Redgranite, WI
November 15, 1995	West Allis, WI (MRAC)
November 18, 1995	Dubuque, IA
November 18, 1995	Loves Park, IL
November 25, 1995	Wauwatosa, WI (MRAC)
December 2, 1995	Oak Creek, WI (SWAT/MRAC)
December 2, 1995	Racine, WI
December 2, 1995	River Falls, WI
December 2, 1995	Stevens Point, WI
December 9, 1995	Madison, WI
December 9, 1995	Redgranite, WI
December 20, 1995	West Allis, WI (MRAC)
December 16, 1995	Loves Park, IL

Monthly, 1st Sat. Racine, WI

(except January, July & August)

Monthly, 1st Sat. Oak Creek, WI (SWAT/MRAC)

(except May, June, July & August)

Monthly, 2nd Sat. Madison, WI

Monthly, 2nd Sat. Redgranite

Monthly, 3rd Wed. West Allis, WI (MRAC)

Monthly, 3rd Sat. Loves Park, IL
Monthly, Last Sat. Wauwatosa, WI (MRAC)
(except December)
Monthly, Last Sat. Tomahawk, WI
(January thru October only)
Quarterly Marshfield, WI
(Second Saturday every third month.)

Many Swapfests/Hamfests offer exam sessions. If not shown above contact the sponsoring club in the Swapfest column on page 2.

The FCC now requires applicants to show their ORIGINAL AMATEUR LICENSE to the VEC. A copy of your license must be attached to your FCC form 610. You will also be required to have a photo ID, or other acceptable identification.

GENERAL RULES

FOR MOST EXAMINATIONS:

Be sure to check with sponsors in the event there are changes and/or errors in the dates or information given.

Some examinations require filing an FCC Form 610 and advance registration at least 30 days before the exam date. (Some VECs permit walkins. Check with sponsor.)

To register, you must first secure a copy of the current FCC Form 610 and fill it out completely (AND CORRECTLY). Get your form from an FCC Field Office, the ARRL. Send a 32c/ SASE if you request one from the ARRL. In most cases, forms can also be obtained from the sponsoring group.

ARRL/VEC examinations require a check for \$5.90 payable to "ARRL/VEC".

The FCC now requires applicants to show their ORIGINAL AMATEUR LICENSE or CSCE to the VEC. You must also have two good copies of your license or CSCE. A copy of your license or CSCE must be attached to your FCC form 610 and most VEC want a copy for their records. You will also be required to have a photo ID, or other acceptable identification.

Technician class licensees must show proof of testing before March 21, 1987, in order to upgrade to General with a code test only.

Additional information is given below.

MILWAUKEE RADIO AMATEURS' CLUB (MRAC/VEC)

OAK CREEK, WI (SWAT -MRAC/VEC)

FIRST SATURDAY DATES (No exams June, July or August. May exam on 2nd sat at 1:00 p.m.): 3:30 p.m. at 6560 S. 27th St., Oak Creek, WI. (2 -blocks south of College.) (MRAC fee \$5.00)

THIRD WEDNESDAY DATES: At 6:30 p.m. Manor at Park, 3023 S 84th St., West Allis, WI.

LAST SATURDAY DATES (except December): 9:00 a.m. at 7500 W. State St., Wauwatosa S&L, lower level, Wauwatosa, WI.

For Additional Information Contact; Jack Krause, (414) 774-6999 or call (414) 466-HAMS (Answering Machine) or write MRAC, 1737 N. 116th St., Wauwatosa, WI 53226.

Bring along your ORIGINAL license, CSCE and two (2) good quality photocopies, plus two forms of identification, such a driver's license, etc. Also required is \$5.00 for the exam fee. WALK- INS are welcome. To register in advance, use a post card: print the grade of license you are applying for, and your name, address, and telephone number. Send the card to MRAC/VEC, c/o Jack Krause, W9JK, or Les Peterson, W9YCV at the addresses shown above.

BADGER EXAMINERS (BE) - MILWAUKEE

Amateur exams: 1:00 p.m. to 4:00 p.m.

Commercial exams: 9:00 a.m. to 12:00 noon.

Unless otherwise noted at WMVS-TV studios, MATC Downtown campus in the C building. The address is 1036 N. 8th Street, Milwaukee. Enter at the North West entrance of C Building. Walkins are welcome. To register in advance, send a post card with your name, test or tests you wish to take, date you wish to take., your call sign, address and telephone number to Badger Examiners, Gary J. Sharbuno, WI9M, 5119 W. Willow Rd., Brown Deer, WI 53223. Telephone (414) 355-0237.

Also available FCC General Radio Telephone Commercial exams. Fees are \$5.90 for the Amateur Radio exams and \$35.00 for the commercial exams.

MADISON, WI

VE exams are held in Madison every second Saturday morning (September through May) of the month at 8 a.m. They are held at the operations building of the Madison Metropolitan Sewerage District at 1610 Moorland Rd. To get there take the Beltline (Hwy 12 & 18) to South Towne Drive. Go south 8/10 mile till South Towne Drive makes a bend and becomes Moorland Rd. and enter at gate.

You should bring a picture ID, your original licence and a copy of your licence. For exams beyond the novice tests, bring a check for \$5.90, made out to the ARRL/VEC. If the special 610 form with the medical exemption is required, contact me beforehand to

(continued on page 15)

Wisconsin Nets Association Ltd.

Art Evans, KA9KLZ, Secretary • 213 North Jefferson • Cuba City, WI 53807

Section Manager's Notes



Richard R. Regent, K9GDF
5003 South 26th Street
Milwaukee, WI 53221

Wisconsin Nets

Net	WNA	Freq.	UTC	CDT	Mgr.
BWN	Yes	3985	1100	0600	W9AYK
BEN	Yes	3985	1700	1200	KE9VU
WSBN	Yes	3985	2230	1730	K9UTQ
WNN	Yes	3723	2300	1800	KA9FVX
WSSN	Yes	3645	2330	1830	N9BDL
WIN/E	Yes	3662	0000	1900	WB9ICH
WIN/L	Yes	3662	0300	2200	W9NGP
NWTN	Yes	34/94	2330	1830	NS9Q
(Rhinelander area)					
RCRA	No	01/61	2330	1830	KA9OMC
(Mondays CDT) (Menomonie Area)					
Gr. Bay	No	72/12	0145	2045	WB9NRK
(Green Bay Area)					
ARES	No	4.65/5.25	0100	2000	
(South East/South Central Wisconsin)					
RACES	No	3993.5	1300	0800	WA9OAY
(LSB Sunday)					

Watertown ARC busy with Riverfest, highway cleanups and fox hunts.

Some Adams County ARC members are getting interested in ATV.

Activity of the month: October 21-22 Simulated Emergency Test. Also, host a Scout Troop for Jamboree-On-The-Air (JOTA). Have your club help with a goblin patrol to help local law enforcement.

QCWA Chapter 162 will have a meeting this month.

Need technical advice, then contact TS N9LTA in Kenosha.

Thought of the month: Together everyone achieves more. □

New RFI Book From FCC

The Federal Communications Commission has released a new interference handbook for consumers. The 24-page, full color book will be stocked by FCC field offices around the country to provide people experiencing interference to home electronic equipment with information and solutions to interference problems.

The book deals not only with interference to televisions from radio transmitters, but also illustrates and describes interference caused by poor antennas (weak signals, ghosting), electrical interference from home devices such as hair dryers, electrical interference from power lines, and interference from home computers and low power radio devices such as garage door openers.

In addition to interference to televisions, the handbook describes solutions to interference to hi-fi systems, telephones, and video cassette recorders. Techniques for solving problems include the use of ferrite cores, improving receiving antenna systems, checking cabling, and isolating interconnected units to find the one that is at fault.

The book lists addresses and phone numbers for sources of high pass filters, common mode filters, band reject filters, ferrites and beads, AC line filters, telephone filters, and interference resistant telephones, as well as an extensive list of manufacturers of home electronic equipment.

Page one of the new FCC Interference Handbook says "many interference problems are the direct result of poor equipment installation. Cost-cutting manufacturing techniques, such as insufficient shielding or inadequate filtering, may also cause your equipment to react to a nearby radio transmitter. This is not the fault of the transmitter and little can be done to the transmitter to correct the problem. If a correction cannot be made at the transmitter, actions must be taken to stop your equipment from reacting to the transmitter."

ARRL Laboratory Supervisor Ed Hare, KA1CV, says, "This is the statement from the FCC that hams have been waiting for. The book takes a fair and honest approach to explaining responsibilities and cures for interference problems. The FCC team that put this together has done a fine job with a complex technical and emotional subject."

- ARRL Bulletin ARLB073, 7/25/95

New ARRL President Leads First Board Meeting

The ARRL Board of Directors met July 21 and 22, 1995, for their second meeting of the year, with new president Rod Stafford, KB6ZV, wielding the gavel. All directors and officers and 14 vice directors were present. Here are the highlights:



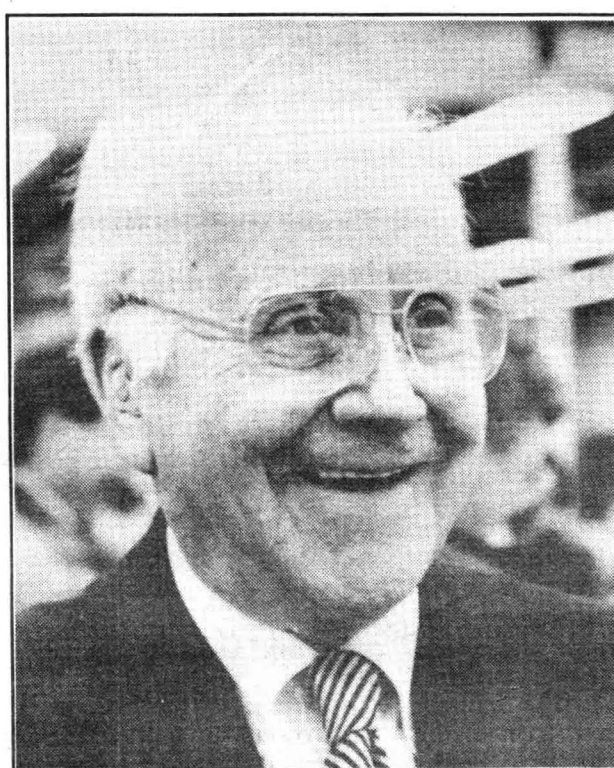
- George S. Wilson III, W4OYI, who resigned the ARRL presidency on July 1, was named an ARRL president meritis, in recognition of his 16 years of service to the ARRL in several elective offices.

- General Counsel Chris Imlay, N3AKD's, report addressed frequency allocation and other pending FCC rule making matters, including an Apple Computer petition for spectrum at 5 GHz; implications for Amateur Radio of spectrum needs of Intelligent Transportation Systems (ITS); "Omnibus" rulemaking in Docket WT 95-57; and WRC-95 preparation.

Other matters covered in Imlay's report included FCC rules enforcement; forfeiture guidelines; the W5YI petition to eliminate certain one-way transmissions at HF; vanity call signs; and antenna/RFI matters.

- Director Ed Metzger, W9PRN, as president, presented the report of the ARRL Foundation Inc., noting increased interest in the scholarship programs: \$25,200 was awarded as academic scholarships.

- Director Bill Burden, WB1BRE, as chairman



ARRL Central Division Director Ed Metzger, W9PRN

of the Administration and Finance Committee, noted the AMSAT Phase 3D fund raising effort, including matching funds from the ARRL up to \$150,000; at the time of the Board meeting some \$135,000 had been received.

- Membership on the ARRL Awards Commit-

tee was changed from eight (and two alternates) to six. Interaction between the League's advisory committees and its Awards Committee also was modified. (See the related story, "New Procedure to Affect DXCC Decision.")

The following award winners were selected:

Dick Jansson, WD4FAB, of Maitland, Florida, ARRL Technical Merit Award (for his work on amateur satellites);

Karl Lambert, KB4DCR, of Winter Springs, Florida, Excellence in Recruiting Award;

Philip A. Downes, N1IFP, of Oakland, Maine, ARRL Professional Educator of the Year;

Chris Townsend, NU7V, of Scottsdale, Arizona, Herb S. Brier Instructor of the Year;

Charles S. Ward, KJ4RV, of Fayetteville, North Carolina, ARRL Professional Instructor of the Year;

Dr. Ulrich L. Rohde, KA2WEU, Technical Excellence Award (for his series of QST articles, "Key Components of Modern Receiver Design");

Joseph Phillips, K8QOE, and Michael Karp, AF2L, co-recipients of the Philip J. McGan Silver Antenna Award.

- First Vice President Jay Holladay, W6EJJ, as chairman, presented the report of the Transition Committee, with a progress report on implementation of the strategic long range plan. Selected strategies for meeting strategic goals were reflected in the 1995 operating plan.

- Following much discussion, the board voted to begin a transition from two-year to three-year

ELMER

By Rich Regent, K9GDF



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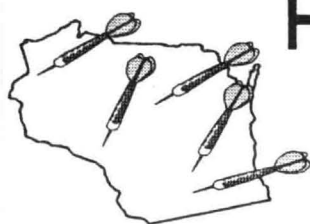
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HERE and THERE

Amateur Radio Call Sign Update

The following is a list of the FCC's most recently issued call signs as of August 1.

District	Group A Extra	Group B Advanced	Group C Tech/Gen	Group D Novice
0	AA0YS	KG0YM	++	KB0TNA
1	AA1OC	KE1CO	N1VPK	KB1BTJ
2	AA2YE	KG2DP	++	KB2VLB
3	AA3MH	KE3UK	N3VWC	KB3BKH
4	AE4LE	KT4BQ	++	KF4CDQ
5	AC5EF	KK5RM	++	KC5QAC
6	AC6PB	KO6YR	++	KE6WKS
7	AB7LS	KJ7QJ	++	KC7MMC
8	AA8UI	KG8SY	++	KC8AQN
9	AA9PT	KG9DR	++	KB9LFJ
N. Mariana	KH0S	AH0AW	KH0ED	WH0ABC
Guam	WH2Q	AH2DA	KH2ON	WH2ANM
Midway	++	AH4AA	KH4AG	WH4AAH
Hawaii	++	AH6OE	++	WH6CXN
Amer. Samoa	AH8O	AH8AH	KH8CJ	WH8ABD
Alaska	++	AL7QD	++	WL7COF
Virgin	WP2R	KP2CG	NP2II	WP2AHZ
Puerto Rico	++	KP4ZY	++	WP4NAI

++ Either all call signs in this group have been used or no new call signs have been recently issued in this district.

- ARRL Bulletin ARLB078, 8/7/95

The H.I.S. Jeans Commercial Saga Continues

It appears that we can finally conclude the ongoing story of that commercial. I was cast in it, and we shot it last September on a farm near Hinkley, Illinois. It finally began airing in this area as a Farm and Fleet spot about the first week in August. It now has gone nationwide. It has aired during Green Bay Packers games, on ABC-TV's "20-20", and during many other shows. The biggest surprise was when I watched Star Trek Voyager on August 12, and saw myself twice. It's the third scene in the spot, on screen for about 1.5 seconds, and, should you want to see your editor, look in the lower left of your screen. I am a boxcar bum, sitting on a most uncomfortable 30s-era milk case made of wood. The spot's title is "Cropduster," and a cropdusting biplane is seen all through the 30-second commercial. It is in black and white, and beautifully photographed. If you want the best chance to see it, change your habits a little. Don't go potty or fetch a beer during the commercials. Go during the program instead.

- K9ZZ

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Field Day is Fun for Everyone!



Enjoying Field Day - and ham radio all around - isn't just for the older folk. Nathan Fleming, KB9-IYG, had a great time operating the Novice station at the Fox Cities Amateur Radio Club site.

- Photo courtesy Maury Mead/W9FBC

Comment Date for IARP

The Federal Communications Commission has assigned RM-8677 to an ARRL petition for rule making, to implement US participation in an "International Amateur Radio Permit" (see front page) covering countries in the Western Hemisphere.

The comment deadline on this matter is August 31, 1995, and the reply comment deadline is September 15, 1995.

The IARP would allow, in conjunction with an amateur's home-country license, temporary operation in any other country in the Americas that has signed the agreement.

The IARP, the League said, would eliminate paperwork for both the FCC and for US, as well as foreign, licensed amateurs. Countries signing the agreement will not be allowed to levy a fee or tax on a visiting IARP-holder. IARPs would be issued in two categories: Class 1 (in the US, Amateur Extra Class privileges), and Class 2 (Technician class privileges).

- ARRL Bulletin ARLB079, 8/11/95

Dick Cotton, W8DX, SK

Dick Cotton, W8DX, a former FCC engineer in charge at the Detroit Field Office, died July 29, 1995, in Detroit. He was 89 years old.

He was born in Minneapolis in 1905 and graduated from the University of Minnesota with a degree in "radio engineering." He attended university in the 1920s while also working as a shipboard radio operator plying the Great Lakes.

Following a stint at a US government monitoring station on Mt. Hood, Oregon, he joined the Federal Radio Commission's Detroit office in the early 1930s. He was a government employee of the FRC and then the Federal Communications Commission continuously until retiring in 1971, finishing his career as engineer in charge.

He was first licensed in the early 1920s, and



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Ham's War Anniversary

The young US Army Signal Corps sergeant who helped relay the "end of the war" message on August 14, 1945, is an Amateur Radio legacy and a current active ham.

Sgt. Richard Zucker, today KB3YM of Ellicott City, Maryland, was a radio operator with the 3116th Signal Service Battalion at WTJ Radio Control on Oahu, Hawaii. At 2314Z, the 21-year-old radioman received a teletype message from the Pentagon station WAR near Washington and relayed it to General Douglas MacArthur in the Philippines. The message announced the Japanese capitulation, signifying the official end of World War II.

Zucker grew up in an Amateur Radio family in Mt Vernon, New York. His father, also named Richard, was on the air in 1913 with a kilowatt spark rig and a "self-assigned" call sign: 2DB. The elder Zucker was in the Signal Corps in World War I. Young Richard enlisted in the service in 1942 at age 18 and was assigned to the Signal Corps because he already knew the Morse code. He took his amateur license exam in 1944 while stationed in Honolulu and was assigned his first call, W2QKT, in 1946.

After the war, Sgt. Zucker earned a bachelor's degree from New York University and a master's from Brooklyn Polytechnic Institute. Today, he is active both on the amateur bands and on the Military Affiliate Radio System, as AAR3EO. His wife is Doris Jean Hauck.

- ARRL Bulletin ARLX039, 8/9/95

held W8LEC before becoming W8DX. An active DXer (331 Mixed as of 1986), he was one of the first amateurs on the Oscar satellites and held satellite DXCC. He was an ARRL life member.

His successor as EIC of the Detroit office, Ed Atems, W8BX, remembered Cotton as someone who "got on amateur television by winding his own deflection yoke coil." In the early days he also made his own variable capacitors. Atems retired in 1978. The current Detroit EIC is Jim Bridgewater, AA8JD.

Richard Cotton was buried in Detroit. He leaves a son, Richard Cotton Jr, and a daughter, Mary Green.

- ARRL Bulletin ARLX038, 8/8/95

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September 1995

West Allis Radio Amateur Club Field Day 1995

By Tom Macon, K9BTQ
3547 South 95th Street, Milwaukee, WI 53228

Just when I thought Field Day was becoming the same old thing year after year, this one was different -- different in several ways.

The biggest difference, I think, was the fact that we had on site food. Not only was the food very good, thanks to Tim Schumann's efforts, but it added gemütlichkeit - a spirit of camaraderie - to the event. Although I hadn't really missed it, I now realize we were lacking this in the past. The people at each station kind of did their own thing and that was it.

Another difference is that we had fewer stations. For years we had three stations, but it became clear a couple of months ago that we wouldn't have enough band heads to make that happen this year. This was largely because some regulars of past years were unable to attend this year. We also had some new people, especially some young people that got their first taste of Field Day.

We also had a special visitor Sunday morning that added a different dimension to this year's Field Day. You can learn more about this in a separate article by Les Peterson.

As for scoring, the VHF/Novice station did well, with just over 300 contacts.

The Novice station had 173 contacts on the 10-meter Novice band. The low-band station did poorly in comparison to previous years with barely more contacts than the VHF/Novice station. This was mainly because new operators were learning the ropes. In addition, we experienced some technical problems such as an antenna tuner that didn't work and incompatibility between keyer and radio.

I am always pleasantly surprised by the number of people that come out to help put up and take down the Field Day setup. But I have a concern for future Field Days. We need more people who are willing to take charge of planning and organizing the various aspects of the event. This year's Field Day was about as small as it can get and remain as a viable activity for WARAC.

Another thing that surprises me is the number of people who come out to Field Day but are not interested in operating. Perhaps we need some type of program or class on contest operating to generate more interest.

A hearty "thank you" to everyone who helped in any way, especially Tim Schumann (food and drink) and Phil Gural (Novice/VHF station and generators.)

♦ ♦ ♦ ♦ ♦

A Surprise Visitor

By Les Peterson, W9YCV
9741 West Howard Avenue, Greenfield, WI 53228

The West Allis Radio Amateur Club had a surprise visitor at its Field Day activities. Your editor received a phone call from Larry Mulvehill, WB2ZPI, Thursday morning, June 22 saying he is a photographer for *CQ Magazine* and will be visiting our site. He wanted to apprise us of the visit, and compare directions to our site with the map created by his computer program.

After determining his modes of transportation, his motel, and the time frame of his visit, I gave him some particular landmarks to add to his map, the club's repeater frequency, and assured Larry he would experience no difficulty finding the site. Telephone calls to Phil Nofitz, Tom Macon, Tim Schumann and Phil Gural alerted them to the upcoming visit. I suggested the repeater frequency be monitored for sure on Sunday morning.

Our visitor, Larry, arrived about 8:30 a.m. Phil Nofitz and I were on-site before eight o'clock, so we were there to meet and introduce him to the others. After introductions, there was a pause in activities for coffee, donuts and conversation. Larry then went around taking several pictures of club operators pursuing contacts and our various setups. Fortunately, though our setup was less impressive this year, Larry got some good teamwork photos. He got shots of a new younger generation operator, working with an older generation experienced FD operator. They were of Michael Falk, N9YKZ, doing computer logging, while Lynn Tamblin, K9KR, was making contacts.

During conversation periods, Larry told us how he learned about WARAC and about his itinerary for this trip. Larry had Jerry Seefeld's VHF/UHF/SHF mobile station WA90,, Paul Hellenberg's contest station KS9K in Racine, and Paul Bittner's contest station, W0AIH in Eau Claire, on his list to photograph. We learned how he came up with a map of our area and how the pictures he takes get used. Some photos are on the covers of *CQ Magazine*, while others appear on their annual calendar. There was discussion about his travels, cameras and photo activities. Other topics were our club's past Field Days, computers, InterNet, and commercial Online services.

Larry showed us his new pocket size ICOM dual band HT and a GPS unit he carries with him. He demonstrated the latter by finding our latitude, longitude and elevation by triangulation from the five satellite signals it received. Thus, we



CQ Magazine staff photographer Larry Mulvehill, WB2ZPI, stops his picture taking momentarily to pose with WARAC President Phil Nofitz, N9FEW, by-the-HF station.



John Westmayer, N9LGD, poses briefly while making contacts on 10 meter SSB at the Novice station.



Michael Falk, N9YKZ, handles the computer logging, as Lynn Tamblin, K9KR, makes 20-meter SSB contacts.

- Photos courtesy Les Peterson/W9YCV

knew for sure that we were just inside grid square EN52 at an elevation of 800 feet.

Near the conclusion of Larry's three hour visit with us, more pictures were taken. This time Larry, WB2ZPI, had his picture taken with Phil, N9FEW (see accompanying photo.) After the goodbyes, the mystery remained about how the WARAC Field Day site became the chosen one for this visit. In our conversations with Larry, he had mentioned the name of Bruce Herrick, WW1M. I know Bruce through his activities with the Kettle Moraine club. Also, I anticipated his

Continued on page 7

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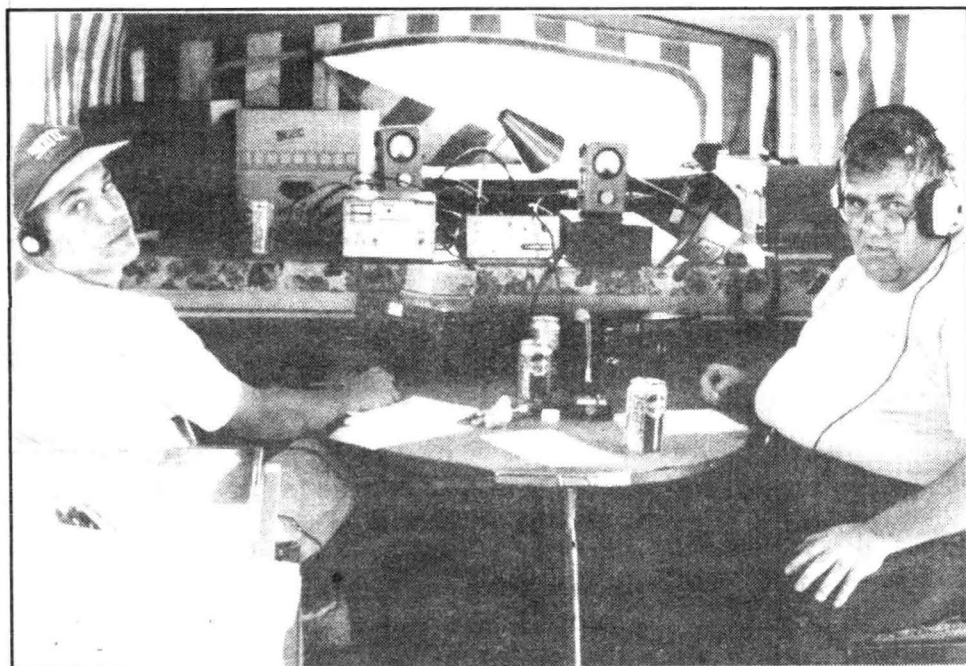
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A Surprise Visitor

Continued from page 6



Jim Westover, KB9KBK, mans the 6-meter position, while Jim White, WB9YCS, takes care of the two-meter operation.

- Photo Courtesy Les Peterson/W9YCV

presence at the South Milwaukee ARC Swapfest. So, I put his name on my list of people to see. I did catch him and learned of his close ties with *CQ Magazine* personnel. Also, I found out that General Manager John Dorr, K1AR, knew about WARAC through our Wisconsin QSO Party sponsorship. With *CQ's* interest in WARAC and, at Bruce's suggestion, WARAC's FD activities became part of Larry's itinerary this year. That pretty well clears up the mystery.

Although not a certainty, some shots taken at our FD site just might appear on the 1996 calendar - or possibly on the cover of a future *CQ Magazine*. Keep watch!

Eau Claire Amateur Radio Club and Mission Eau Claire:

Dream Odyssey

By Carol Ceraso, N9TUA
2432 Shafer Road, Chippewa Falls, WI 54729



Mission Control for Dream Odyssey was in the Eau Claire Amateur Radio Club's communications trailer.

- Photo courtesy Carol Ceraso/N9TUA

The E.C.A.R.C. participated in Mission Eau Claire: Dream Odyssey. Last year, Kurt Bushman, from the E. C. School System, was a featured speaker at a club meeting explaining the purpose of Mission E. C. and expressed the need for the E.C.A.R.C.'s support in communications technique.

This past school year, final plans for Dream Odyssey became reality. Kurt's official title became Space Mission Coordinator, and over 150 volunteers donated money, time, and/or materials to convert a school bus into a NASA space shuttle; trained fifth-grade students to learn skills to simulate astronaut's duties, television and newspaper reporters, security workers, etc. The E. C. elementary schools were transformed into planets, and the Dream Odyssey visited the planets during the 8-day mission, conducting experiments on the planets and transmitting the information to Mission Control and sharing the information with other schools and the community.

Mission E. C.: Dream Odyssey was launched on May 10, 1995, and was completed with a celebration at Carson Park on May 20th. Col. Mark C. Lee, USAF, NASA Astronaut and a native of Viroqua, Wisconsin, was present for the launch and gave a presentation.

The E.C.A.R.C. donated \$200 to help defray the cost of study materials and conducted classes to aid the fifth-grade students and parents in preparation for testing for their Amateur Radio license, conducted two VE test sessions, and helped to "man" the Dream Odyssey Shuttle and Mission Control as Control Operators during the launch and mission. Club members involved with class sessions were N9LIJ, N9PPE, N9SPK, and WB9RBP. Classroom provisions were made by KA9OMY and KE9KW. Other members of the E.C.A.R.C. helped as control operators and where needed for communications.

Plans are being formatted for this coming year's mission and another generation of Amateur Radio people are coming into being -- WELCOME to one and all! It was a great experience for all who participated.

Quarter Century Wireless Association, Wisconsin Chapter 55, Meets

By Les Peterson, W9YCV

9741 West Howard Avenue, Greenfield, WI 53228-1351



Left to right: Hub Gerend, W9OUT; Reno Goetsch, W9NA; Bob Baird, W9NN; Harry Eckland, W9SKX; Charlie Dawson, W9CUW; Gerry Van Den Wymelenberg, W9VOW; Joe Ash, W9ODV; and Jack Krauke, W9JK.

- Photo by Les Peterson/W9YCV

On a lovely Wisconsin day for a drive, the members of Chapter 55 and guests gathered at Machut's Supper Club, Two Rivers, WI for their Spring meeting. An overwhelming majority had expressed their desire to return here because of the wonderful food and facilities.

Many enjoyable "Eyeball QSOs" took place before the dinner. Then at noon, following the invocation, all partook of a delightful family style dinner. After dinner, Chairperson Ed Seruga, KE9JJ, asked for a moment of silence in memory of the chapter's silent keys. Those named since our Fall meeting last October were: Al Krones, K9AA; Larry Schepp, KA9UBM; Teen Norbury, W9LUB; Joe Stevens, W9GAH; and Ray Swenson, W9VTL. During this moment, we also had longtime member J. Travis Baird, W9VQD, in our thoughts. Travis is at Bradford Terrace in Milwaukee slowly recovering from a severe stroke he suffered recently. A "Get Well" card went around for all to sign wishing Travis the best on his road to recovery.

The ladies then went to another area for some bingo games and prizes while the chapter held its business meeting. Secretary Jack Krause, W9JK, read the minutes and Treasurer Erv Froehlich, W9RZW, reported on the treasury. The members accepted both as read. Then Bob Baird, W9NN, a charter member of QCWA, Inc., and recent recipient of a 75-year plaque) presented QCWA certificates to the following (see photo):

- Charles Dawson, W9CUW — 55-year Gold Certificate and Century Club Certificate (101 years.)
- Harry Eckland, W9SKX — 60-year Gold Certificate and a Century Club Certificate (101 years.)
- Reno Goetsch, W9NA — 60-year Gold Certificate and a Century Club Certificate (101 years.)
- Jack Krause, W9JK — 60-year Gold Certificate and a Century Club Certificate (102 years.)
- Herbert Gerend, W9OUT — 60-year Gold Certificate and a Century Club Certificate (102 years.)
- Gerald Van Den Wymelenberg, W9VOW — 60-year Gold Certificate and Century Club Certificate (103 years.)
- Joseph Ash, W9ODV — 70-year Gold Certificate and a Century Club Certificate (104 years.)

Receiving certificates also were the following absentees:

- Lawrence Kemmer, W9RSX — 50-year Gold Certificate
- James Molledahl, W9BI — 60-year Gold Certificate
- Howard Olds, W9KI — 60-year Gold Certificate and a Century Club Certificate (101 years.)
- Melvin Bernstein, W9WZ — 50-year Gold Certificate.

Following the presentations, Bob Baird, W9NN, a retiree from WGN, told several humorous incidents that occurred during some broadcasts throughout his years at WGN.

The business meeting continued with an announcement regarding the forthcoming joint meeting of the three Wisconsin chapters. It will be at Robbins Restaurant and Supper Club in Oshkosh on Saturday, August 26. Next, the Chairperson selected Charlie Dawson to head the nominating committee as there is to be an election of three board members during the chapter's October meeting. The terms of Roger Zaun, W9UVV; Bill Kimble, WA9OAY; and Fred Becker, W9KKM, are expiring. Chairperson, Ed Seruga also asked Dick Scarvaci, K9CAN, to select a meeting place in the Port Washington area for the October meeting.

Drawing of men's door prize numbers followed and then the meeting adjourned.



Ask Elmer

Q. Should I use FAST.DRV with dBASE?

A. No. Most former users found that it's not compatible with dBASE or WINDOWS.

Q. How many FILES and BUFFERS should I use on my 386?

A. Start with FILES=30 and BUFFERS=8. If there are no error messages in your applications uses, then reduce these even more. Also, you don't need BUFFERS when using SMART.DRV.

Q. Should I worry about using STACKS?

A. You don't need to use STACKS anymore, so don't worry. STACKS, used in CONFIG.SYS, supports the use of dynamic data stacks. The default is 0,0 (the number of stacks and the size in bytes) for the IBM PC, IBM PC/XT and IBM-PC portable.

Q. BACKUP doesn't work with my new DOS 6.0.

A. BACKUP will still work with older DOS versions, but with DOS 6.0 the new command is MSBACKUP, the Microsoft menu driven program to backup and restore one or more files from one disk to another disk. This program replaces BACKUP and RESTORE in previous DOS versions.

Q. Is there a backup program for Windows files.

A. The program MWBACKUP is for windows and is similar to MSBACKUP for DOS 6.0, both can backup and catalog files. Files are compatible between MSBACKUP and MWBACKUP.

Do you have a question or a problem? Ask Elmer! Send your questions (no telephone calls, please) to "Ask Elmer," 5003 South 26th Street, Milwaukee, WI 53221. □

ARRL Board Meets

Continued from page 4

terms of office for ARRL directors and vice directors. Article 4 of the Articles of Association and Bylaws of the ARRL were so amended. The transition will begin with elections for board seats in the year 1998.

- Director Hugh Turnbull, W3ABC, as chairman, presented the report of the RFI Task Group. The committee noted the work of the sub-group on immunity, and on the tracking of product immunity performance, a new RFI handbook from the FCC, and concerns on an initiative on the part of FCC to refer RFI resolution matters to the private sector.

- Vice Director Dennis Bodson, W4PWF, as Board liaison, presented the report of the Future Systems Committee, noting that it will meet in conjunction with the ARRL Digital Communications Conference on September 8 and 9 in Arlington, Texas. Agenda items include the amendment of Part 97 spread spectrum rules, and further development of bands above 420 MHz.

- The board voted to have ARRL staff create a plan, including a budget, for the creation of standardized testing procedures for consumer electronics equipment to ascertain their degree of immunity to RF interference, after study by the Administration and Finance Committee.

- Director Turnbull, as chairman, reported on a recent meeting of the Amateur Auxiliary Oversight Committee, and on a new brochure now available to raise the level of awareness of, and to stem misperceptions of the program. The committee discussed procedures for presenting cases to the FCC for enforcement action. Turnbull also noted recent FCC Orders in which the efforts of Amateur Auxiliary members were recognized.

- Director Rick Roderick, K5UR, reported on a busy time for the Contest Advisory Committee.

- Vice Director Bruce Frahm, K0BJ, Board liaison for the DX Advisory Committee, noted DX

issues, including: proposed additions and deletions to the DXCC countries list; a DXAC Member's Handbook; the DXCC "minimum size rule"; and modification of DXCC Rule 4.

- Vice Director Howard Huntington, K9KM, as Board Liaison, presented the report of the Public Service Advisory Committee. On its own initiative, the committee has studied the following issues: RACES bulletins from California; concerns about the use of the term "amateur" before agency officials; training for ARES; the National Disaster Medical System (NDMS); and a possible "packet-zine" to be issued by ARRL.

- Manager of Legislative Affairs Steve Mansfield, N1MZA, reported on progress toward meeting the League's legislative agenda, especially relative to issues involving fees, liability protection for volunteers, spectrum protection, and effects of deregulation on Amateur Radio.

- The Board adopted a resolution commending all those involved in the new ARRL film *Friends for Life*.

- Voted that the League will participate in a national "VEC Corporation" only by observation and comment.

- Passed a resolution praising all those involved in the Shuttle Amateur Radio EXperiment (SAREX).

- Directed a staff study of the methods by which Headquarters disseminates information (news) and to recommend changes or improvements.

- Directed that a handout be made available regarding "band planning" and usage, to be offered to manufacturers of amateur equipment with the request that the handout be packed with new equipment.

- The ARRL Letter, 8/3/95



OUR WANT ADS GET RESULTS

SWAP: Collector's item: Hallicrafters SX-71 5-band tube-type receiver. No speaker, no manuals; for 10-meter rig or? Corky, KA9BDY, (608) 238-9147.

ESTATE SALE/WA9PDX

- Mosely TS-33JR with KW traps installed;
- Alliance dual-speed HD-73-1 rotor, new when installed, never used;
- 40-foot self-supporting tower with house brace (base in concrete);
- Approximately 60 feet of RG-8 coax and rotor cable.

Entire tower/antenna/cable package \$150.00 or best offer. **SOLD**

- Aerotron commercial grade 2-meter FM transceiver with mike. 25 watts, 12 VDC. Crystal controlled for one repeater frequency, currently on 146.28/146.88. Very stable and clean. \$10.00. Contact Mrs. Roger Pahl, Baraboo, at (608) 356-8106.

FOR SALE: KDK FM-2033 2-meter FM transceiver. \$150.00/best offer. Ken Ebner, K9EN, 822 Wauona Trail, Portage, WI 53901. (608) 742-3560.

WANTED TO BUY: Kenwood MC-50 microphone. Also, a mike and cable to fit a Kenwood TR-7400A 2-meter rig. Bob Johnson, WB9EIW, (608) 742-6460.

FOR SALE: Kenwood TS-520S with external speaker and D-104 mike. Asking \$300.00. Jim Romelfanger, K9ZZ, 412 1/2 Ash Street, Baraboo, WI 53913. (608) 356-4031. **SOLD**

THERE IS NO CHARGE for publication of non-commercial ads in Sell, Swap, Buy. Ads may be sent either to Jim Romelfanger, K9ZZ, 412 1/2 Ash Street, Baraboo, WI 53913, or Ken Ebner, K9EN, 822 Wauona Trail, Portage, WI 53901. No ads will be accepted by telephone or other verbal means. □

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For The Ladies

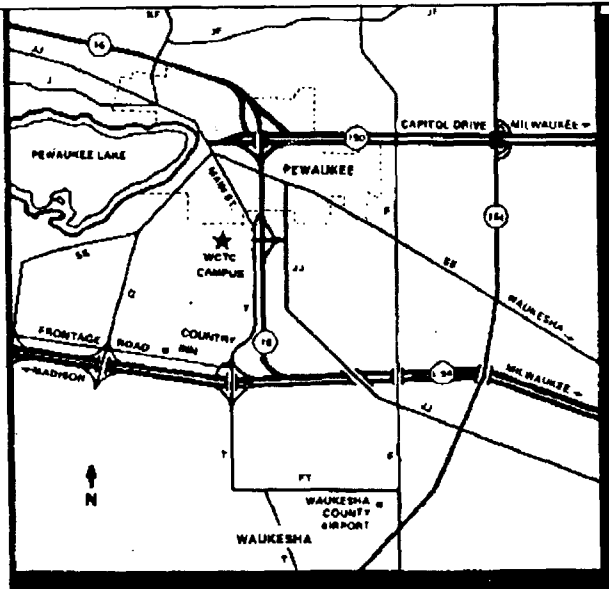
By Nancy Johnson, N9NZM
407 Adams Street
Fort Atkinson, WI 53538

A room, tables and chairs, tape players, headphones, pens and pencils, and forms. What do they all add up to? Volunteer ham exams. It seems like no matter where you are, there is always a group of people willing to give of their time and energy to give ham exams.

I did not realize until I became part of a group how much work went into this part of Amateur Radio. In our group there are several who are involved, some to promote and make up the fliers for the upcoming month. And there are others who show up to monitor and give the tests themselves.

I have noticed that in the summer it's challenging, if not difficult, to come up with enough people to keep this service to our communities continuing. This is something that, even if you're not certified through the ARRL or another group, you could be involved in. I have also noticed that those who show up early with a positive attitude usually pass.

There is money to take and count, and paper work to keep track of then check as well. We



appreciate those who take part with us, but we could at times use more people to help. I have noticed that even those who do not pass usually go home to study and return later.

I always had thought that the difficult part was studying and passing the exam itself, but being part of a team has shown me that there are a lot of hours and preparation that go into the exams long before the doors open.

part of the test or another but it's not till you compare notes with someone else that you realize that anything worthwhile takes time, effort and work.

When I got my license, I chose to take a class. At the end, Rob, WA9ZTY, got a team together to give the exams. I would like to challenge the other hams out there to take the time to get involved in your local ham club. No matter whether you're a no-code Tech or an Extra, you will probably find a group that will be glad that you called and offered your time.

I still have not heard from the lady hams out there, and I am surprised at the lack of response. Please send all articles and pictures to 407 Adams Street, Fort Atkinson, WI 53538.

A writer's note to fellow examiners and examinees: On September 9th we will be giving exams at the Waukesha Technical college in Pewaukee (see map), starting at 9:00 a.m. in the Science Building Room S101. 800 Main Street off from Highway 16 or T.

Other dates are October 14, November 11th, December 9th, January 13, 1996, February 10, March 9th, and April 13th. So get a book, mark your calendars, study and be there or miss the fun and opportunity to make a difference. And, if you're able, come join the team! □

ARRL Asks FCC for Quick Action on "International Amateur Radio Permit"

The American Radio Relay League has asked the Federal Communications Commission to implement US participation in an "International Amateur Radio Permit" covering countries in the Western Hemisphere.

The IARP would allow, in conjunction with an amateur's home country license, temporary operation in any other country in the Americas that has signed the agreement.

The IARP was developed through the Inter-American Telecommunication Commission (CITEL) by Region 2 of the International Amateur Radio Union, and after approval by CITEL it was presented to the General Assembly of the Organization of American States, where The Inter-American Convention on an International Amateur Radio

Permit was adopted on June 8, 1995.

(The US Communications Act permits the FCC to allow foreign radio amateurs to operate in the US and its territories through both bilateral agreements - the familiar "reciprocal operating agreements" between two countries - and multilateral agreements, such as the IARP.)

The IARP, the League said, would eliminate paperwork for both the FCC and for US, as well as foreign, licensed amateurs. Countries signing the agreement will not be allowed to levy a fee or tax on a visiting IARP holder. IARPs would be issued in two categories: Class 1 (in the US, Amateur Extra Class privileges, and Class 2, Technician class privileges).

- The ARRL Letter, 8/3/95

Office Closings Proposed by FCC

Continued from front page

Regional offices would be closed in Atlanta, Boston, and Seattle, leaving their functions to regional offices in Chicago, Kansas City, and San Francisco.

The following field offices would be closed (leaving 16 still open): Buffalo, Miami, St Paul, Norfolk (Virginia), Portland (Oregon), Houston, San Juan, Anchorage and Honolulu.

All nine monitoring stations would be closed, as well as monitoring operations within four FCC field offices. "Fortunately," Hundt said, "technological advances will permit us to replace these monitoring stations with a national automated monitoring network by the summer of 1996."

These nine monitoring stations are at Vero Beach, Florida; Belfast, Maine; Allegan, Michigan; Douglas, Arizona; Livermore, California; Ferndale, Washington; Grand Island, Nebraska; Kingsville, Texas; and Powder Springs, Georgia.

Hundt said "No monitoring function will be impaired." One facility, in Laurel/Columbia, Maryland, would be the central site for "electronic monitoring."

If approved by the full Commission, the monitoring stations and field offices would close by July 1996. No timetable was given for closing of the four regional offices.

- ARRL Bulletin ARLB082, 8/18/95

ARRL Files Reply Comments to FCC Rules Change Plan

The ARRL has filed reply comments on FCC proposals of several rules changes, in WT Docket 95-57.

The League reiterated its original comments (detailed on page 59 of September 1995 QST) and responded to several comments and suggestions by others.

On the matter of a lifetime amateur operator license (an original ARRL proposal) versus granting to an expired licensee credit for licenses previously held (the FCC's proposal), the League said that while comments were mixed, those comments on

the FCC's proposal failed to consider a lifetime alternative as a superior alternative.

The League cited its strong opposition to the idea of a volunteer examination "session manager," saying that the shared responsibility of three volunteer examiners is crucial for continuing the integrity of the VE program.

The League in its reply comments said that most others who commented supported its proposal to increase from two to four the number of licensed members required to constitute an Amateur Radio "club" for the purpose of obtaining a club station license.

Finally, the ARRL noted that almost no comments had been received, pro or con, on proposals to expand the ways to "sign portable" and to offer temporary 1X1 call signs to special event stations.

- ARRL Bulletin ARLB081, 8/18/95

FCC Plan Considers RFI

The FCC is considering "privatizing" the resolution of radio frequency interference to consumer electronics devices. Under the plan, private repair shops would be used to fix problems "in the field."

FCC representatives spelled out the Commission's concept at a meeting in Tampa, saying "Since it is not feasible for the Commission to attempt to resolve these complaints" (the most of which come from Citizens Band operation), "it is our policy not to investigate interference to home electronic equipment. Likewise, we do not offer any protection from interference."

Over past several years, the FCC has been "unofficially" out of the "retail" RFI business, and parties who contact the FCC about an interference problem are asked to work together toward a solution.

Depending on what the local repair shop found, either the shop would fix the equipment or, in the case of a violation of FCC rules, the service shop would refer the case back to the FCC for possible FCC action. The question of who would pay was not addressed.

The ARRL, which had responded to an FCC request for input before the meeting, was represented at the meeting by several local volunteer officials, in consultation with ARRL Laboratory Supervisor Ed Hare, KA1CV.

- ARRL Bulletin ARLB080, 8/15/95

Form 610 Copies Okayed by FCC

The Federal Communications Commission now accepts form 610 amateur applications on white paper, two-sided copies of the form.

This is a result of the FCC adding the form 610 to its "fax-on-demand" service, at 202-418-0177.

Since official FCC forms are color coded, submitting applications on official, buff colored forms 610 may result in more expeditious service.

The ARRL/VEC will continue to use buff colored "official" forms 610 for its exam activities.

- ARRL Bulletin ARLB074, 7/25/95

Where is Stan, Our Computer Man?

"The Computer Corner," a monthly column written by Dr. Stan Kaplan, WB9RQR, does not appear this month. At deadline for copy, his article had not arrived at BSSS Headquarters. We hope to have him back, in full, informative form, in our October issue.

PARTICIPATING CLUBS AND ORGANIZATIONS



Riverland Amateur Radio Club

Tom O'Brien, WB9BJQ
Secretary

Club mail address: P.O. Box 621
Onalaska, WI 54650



MEETING MINUTES AUGUST 1, 1995

Meeting was called to order at 7:00 p.m. by President Feroz, WU9N. Minutes of the meeting were approved as amended.

Treasurer's report was read and approved. Mark, N9UNW, reported that we have 88 paid members, the same as last year at this time. Mark also explained the disbursements for the 440 repeater.

Program: September program will on Tracking Wildlife given by the DNR.

Swapfest: Dick, K0JYB, reported on vendors who will be present at our Swapfest. We will have 40 tables with vendors. Several have already paid. A number of flea marketers have also already pre-registered. Amateur Radio Trader has donated 1 year free subscription as a door prize. There was also a discussion of procedures for the swapfest.

Repeater: Duane, W9HWQ, reports that all is OK.

Net Manager: Mike, N9LXI, reported that there have been some problems with Sunday night net. 15-20 people have been participating on nights that it has been held. 60% of people checking in are non club members. There was some some

discussion about changing starting time. No decision reached.

SKYWARN and ARES: Kent reported on the latest outing of the the SKYWARN net and assistance given to the county emergency dispatch center. There will be a Red Cross emergency drill on August 24, 1995 at about 6:30 p.m.

Amateur Radio Weekend: A committee meeting has been scheduled for August 2, 1995 at 7:00 p.m. at Onalaska Country Kitchen.

A motion was made by Walt, AA9AW, and seconded to extend meeting. Motion approved.

Constitution Committee: Meeting has been scheduled for Thursday August 10, 1995. Committee members are Walt, AA9AW, Tom, WB9BJQ, Bob, N9LZQ, Dick, K0JYB, and Roger, N9RWU.

440 repeater: Dan, N9PZC, reported that Motorola radios were obtained from Van, WA9FIO. New cavities were ordered but are not yet here. Still need power supply. Bob, N9LZK, has agreed to lend one temporarily.

Estate Sale: Art, W0JDC, reported on the progress.

A motion was made and approved to adjourn at 8:07 p.m. □

Eau Claire Amateur Radio Club

Carl Searing, W9NW, Secretary

1129 McKinley Road • Eau Claire, WI 54703

MEETING MINUTES AUGUST 8, 1995

Meeting called to order by President Kevin Zehr, N9OHE, at the University of Wisconsin Eau Claire campus library. Kevin read the previous month's meeting minutes in the absence of Secretary Carl Searing, W9NW. The minutes were approved as read. Treasurer Sue Eide, KB9EUP, gave the treasurer's report, which was accepted and approved.

The meeting consisted primarily of review, wrap up and discussion of the July Hamfest. Appreciation given to those who did help out at the activities with special appreciation given to those who helped retrieve, set up, tear down and return tables. As well, those who had signed up and/or were able to help (especially for the table duty) and didn't were given just thoughts on their performance and turnout.

Concern was given in reference to the amount of effort, time and volunteer help in the hauling of the tables, as well as the growing rental fees. Other concerns consisted of: 1) the narrow aisles not providing very good accessibility for the handicapped (as well as those not handicapped), 2) the availability of access controlled and additional tailgate spaces and 3) the concern of early sales taking place prior to door opening. Some members are looking at a possible move for the hamfest to answer some of the concerns as well as having it in a more climate controlled atmosphere.

On the bright side: 1) all tables were sold, 2) the kitchen was a hit and sell out (especially FREE coffee) and 3) many

positive comments were heard on various nets and on the airwaves regarding door prize structure of \$20 every 20 minutes and the hamfest in general. Attendance was noted to be down about 15% and the general aspect of a social event was discussed as the primary reason of holding a hamfest instead of it primarily being a fund raiser.

The weatherman was thanked for the live cold weather funnel display immediately following the hamfest closing.

A few left over door prizes were drawn for and given out prior to adjournment and the program for the month.

Bert Spangler, W9ZZI, presented an enlightening presentation of how technology is used in education. A noteworthy part of the program was a live demonstration by Joe Eide, KB9R, enlarged via video display, on "Connectorizing." Joe also discussed the strengths and limitations of the three most used coax connectors in Amateur Radio, the PL-259, the BNC and the N.

Rich Dirks of the UWEC Media Development Center gave visits to the UWEC distance education classroom and to the head end of the UWEC video receiving and distribution system. Much thanks to Rich.

Last (but not in the least), brownies, blueberry cake and lemon bars were enjoyed by all. Thanks to Judy Spangler. Lunch for the September meeting to be provided by Sue, KB9EUP, and Kevin, N9OHE.

Submitted by President N9OHE
and Vice-President W9ZZI

If your club would like to become a participating club in Badger State Smoke Signals, write or call Ken Ebner, K9EN, 822 Wauona Trail, Portage, WI 53901, 742-3560. Several plans are offered, and all bring your club several benefits, including reduced rates on BSSS subscriptions.

Taylor County Area Amateur Radio Club

Mike Schoenfuss, N9GHZ, Secretary

P. O. Box 401 • Abbotsford, WI 54405-0401

MEETING ANNOUNCEMENT

The next regular meeting will be held on Thursday, September 7th at 7 p.m. in the Emergency Government meeting room located in the basement of the sheriff's annex to the Taylor County Courthouse, corner of 2nd and Ogden Streets, Medford, WI. Talk-in on the 147.15 Medford repeater (+ 600 kHz) or 146.52 MHz simplex.

EXCERPTS FROM MINUTES OF AUGUST 3, 1995 MEETING

Meeting was called to order by President N9GEN. Present were KA9WDX, N9GEN, AA9LE, N0IMJ, N9XZI and W9QHI.

Secretary N9GHZ was absent. Excerpts from minutes of July 6, 1995 meeting were accepted as printed in *Badger State Smoke Signals*. Treasurer's report was presented by Treasurer KA9WDX. There were no expenses or income during the past month. The treasurer's report was accepted as presented.

An inquiry was made as to whether or not a letter of appreciation had been sent yet to Taylor County Sheriff Bill Brennehan for his efforts in ensuring coverage of the club's 2-meter repeater under the county's maintenance contract. There was no information available at this time.

An inquiry was made as to the status of the antenna-sharing project between the club's 2-meter repeater and an interested radio paging service. There was no new information available at this time.

President N9GEN expressed his thanks to all those who participated in the severe weather net that was held on July 14th. The activity during the net was critiqued.

W9QHI, trustee of the club's 2-meter repeater, inquired as to whether or not the club was interested in or had given any consideration to applying for a club call sign, now that they will be available again from the FCC. He indicated that whether the club wished to retain him as trustee and continue to use his callsign on the repeater, or whether the club would opt to go with a club callsign and use that instead, it would not make any difference to him either way. No action was taken on this matter at this time as it was decided that there were not enough members present at this time to make a decision on it. Meeting was adjourned.

CLARK/TAYLOR COUNTY AMATEUR RADIO EMERGENCY SERVICE (ARES) NEWS

Mike Schoenfuss, N9GHZ
ARES Emergency Coordinator

Don't forget to try to check into the weekly ARES net held Wednesdays at 8:30 p.m. on the Medford repeater (147.75/147.15). If the repeater is down or not functioning properly, alternate frequencies, in order, are 147.15 MHz simplex and 146.52 MHz simplex. You're also encouraged to volunteer for net control duty for the net.

Thanks to N0IMJ and KB9KBN, who both have recently stepped in within the past month to take net control duties for the weekly ARES net. Your assistance is greatly appreciated! KB9BLV, one of our mainstays for net control operator over the past few years, has started a new job and will be working night shifts. At least for the time being he will not be available to act as net control for the net.

Also, a reminder to all those who serve as net control station for the weekly ARES net: Please keep a log of each net that you conduct. Information to be included in the log is the date of the net, callsign of who acted as net control operator, and a list of callsigns of those stations that checked into the net. Logs should be turned over to Taylor County ARES Emergency Coordinator N9GHZ, either at the next regular monthly club meeting, via mail or packet radio, in person, over the air, by telephone or by whatever other means is available.

CONGRATULATIONS TO..

© Jessica Winzenried, KB9AMX, Colby, Wis., a recent graduate of Colby High School, who placed 8th in the nation in Impromptu Speaking at the Future Business Leaders of America National Leadership Conference held in Orlando, Florida this past July. Jess competed in that category against over 35 other individuals from around the country. Jess is the daughter of Marc Winzenried, WA9ZCO.

© Jessica Winzenried, KB9AMX, Colby, Wis., who upgraded from Novice to Technician Class at the VE exams conducted at the hamfest at Eau Claire, Wis. on July 22nd. □

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MINUTES OF MEETING AUGUST 9, 1995

There was no regular monthly meeting of the CWRA. In place of the meeting, there was a Foxhunt and Family Picnic at Bob Baird, W9NN'S, place. The club furnished the brats, hot dogs and soda and everyone brought a dish to pass. Everyone seemed to have a great time!

As for the Foxhunt, Dave Golla, N9-OVT, was the winner with Joe Larson, N9JW, right behind him. The fox was hidden near the road in some weeds about 100 feet behind the road from Bob, W9-NN's house.

Next's month's meeting is September 13 and is at the UWSP Science Building at 7:30 p.m. No meeting room had been announced as of the date of this report. A program was not announced as well.

Please make sure that you attend next month's meeting as it is election time. This is your chance to make your voice heard on who you would like as officers. It is important that you be there to take part in these elections. There will be plenty of other things to discuss as well!

Respectfully Submitted,
Mary Eiden, KA9FAS
CWRA Secretary

Mancorad Radio Club

Eric Rugowski, WD9IAB, Secretary

P.O. Box 204 • Manitowoc, WI
54221-0204



2-Meter Repeater: 146.01 Input/146.61 Output

MEETING MINUTES AUGUST 9, 1995

Club President Barney, N9XER, called the meeting to order at 7:35 p.m. At this time, a vote was called for, on Gary Linders', KB9KPW, application for club membership. The club voted to accept him for membership. Welcome aboard, Gary! Also, the minutes for the July meeting, were approved (by club vote) as written in "Smoke Signals."

Treasurer Glen, AA9MT, then read the treasurer's report. This was approved by club vote. Also, Yogi, WN9Q, informed the club that a highway clean up (as a part of the club's participation in the state's adopt a highway cleanup program), would take place on Monday, August 14 at 6 p.m. All club members who were interested in helping out with the cleanup were told to meet at the Two Creeks fire station.

President Barney, N9XER, then brought up the issue of remote receive sites (for the club's repeater). For those members unfamiliar with the issue, here's a little background. As you may, or may not know, some areas of the county aren't provided with solid coverage by the club's repeater, due to terrain, and receive and transmit setup of the repeater. A remote receive site would help remedy this problem by providing the repeater with better receive capabilities in these marginal areas. After much discussion by the club members at the meeting, it was decided that the club should carry out a study to determine the requirements for a remote receive site (such as location, equipment cost, site rental, etc.), before determining, whether to put up a remote receive site.

With club elections coming up in October, a nominating committee will be needed to field any potential coandidates for officer positions. Therefore, President Barney informed the meeting attendees, that positions are now open for anyone, who would like to serve on the nominating committee. Any club members who are interested in being on the nominating committee, should get in touch with Barney, N9XER, or Eric, WD9IAB.

Before the meeting closed, Kuby,

N6JSX, made two requests to the club. In his first request, Kuby asked if three copies of the technical manuals and schematics for the repeater's equipment could be made available at three locations. The first would be kept by the repeater trustee, the second would be kept at the club station (for any interested club members' perusal), and the third would be kept out at the repeater site (in case somebody forgets to bring along equipment manuals, it's available for use). All of these documents, would only be for the repeater's hardware. The software documentation for the controller would reside with the repeater trustee (to prevent unauthorized people from tampering with the repeater controller's software).

For his second request, Kuby submitted a written proposal of club constitutional changes, and his reasons for why these changes should be instituted. The club's board of directors will review this proposal and give the club its recommendations about pursuing the changes listed in it. Any members interested in seeing this proposal should either contact Kuby or view the copy that's filed on the club's BBS.

The meeting was adjourned at 8:15 p.m., and refreshments were served.

73, CU down the log.

Eric Rugowski, WD9IAB
MANCORAD Secretary

MEETING ATTENDEES

Eric	WD9IAB
Glen	AA9MT
Barney	N9XER
Terry	N9PZT
Dick	N9QFY
Mike	AA9AA
Ken	WB9OBX
Clancey	KB9ECW
Bob	KB9INK
Vic	WB9VYO
Yogi	WN9Q
Ed	N6WJA
Kuby	N6JSX/9
Len	N9QFO
Bill	K9DUX
Paul	N9QFX



SHEBOYGAN County Amateur Radio Club

Mike Musiel, KF9SJ, Secretary
N9001 Dairyland Rd., Cleveland, WI 53015

The August meeting of the Sheboygan County Amateur Radio Club was called to order by Chris, N9VKC. The SCARC meets at the Red Cross Building, 2032 Erie Ave., Sheboygan WI at 7 p.m. on the second and fourth Tuesday of the month. There is usually no general membership meeting in February, because of the Banquet, and July, because of Field Day.

CLUB MEETING SUMMARY

The program for August was presented by Art, K9XJ. He gave a nice summary of his anniversary trip (and DXpedition in disguise) to Aruba. Unfortunately, the club VCR malfunctioned, and Art could not show his video tape. He more than made up for it in a interesting description of the trip, and its preparations. We hope to schedule Art's video tape in the near future.

Refreshments were again provided by N9TCJ; thanks Chris!

FOX HUNT RESULTS

There is no set schedule, but a club fox hunt is normally held the second Saturday of the month. This month the hunt was set up as a team effort. The fox, N9TCJ, had no set transmit schedule, power level, or location. All of the fox hunt teams cooperated as one unit, which was coordinated by the base operated by Steve, KF9-KZ, and Chris, N9VKC. The hunt was a success, with the fox being found in 1 hour and 20 minutes. The teams were Lee, N9YLS, Josh, KG9BO, and Mike, KF9SJ.

LOCAL PACKET UPDATE

Until Al gets a chance to set up SHEBBS at its new location, the nearest node on the net is on 145.73 (N9GHE-8). This is the Manitowoc LAN frequency. For stations that can not hit N9GHE-8 direct, a temporary gateway has been set up at KF9SJ-3. A second port has been added to the station using the SCARC packet radio and TNC. Stations connecting on the Sheboygan LAN frequency 144.99 can reach MTWBBS by following the instructions on the BBS welcome message at KF9SJ-3.

REPEATER UPDATE

The repeater was moved on July 22 to its new temporary location. Thanks to Lyle, WE9R, Steve, KF9KZ, Kurt, N9-ZMO, Chris, N9TCJ, Lee, N9YLS, and Josh, KG9BO, for the help they provided. (Hopefully, I did not leave anyone out.) Again, thanks to Al, NF9R, for housing the system at his house. A new permanent site is being researched, but will take a little time to secure. The club appreciates the offers and suggestions that have been made by all. If there is a interruption in service, club and weather traffic will shift to the other local simplex and repeater frequencies. The alternate 2 meter repeater frequency is 147.255, N9REH, with a PL. 127.3. This system has excellent coverage of the Sheboygan area.

NETS

NOTICE! The Sunday night packet net will be moving. Stay tuned for the new day and time.

Monday Night Fun Net. Meets at 7 p.m. local time on 147.06 MHz (+107.2PL). All with an Amateur Radio license of Technician class or higher are welcome to check in to this informal get together.

Monday Night 10 Meter Fun Net. Meets around 7:30 p.m., generally following the 2 meter net. The net meets on 28.350 MHz (USB), and all code class Amateur Radio operators are welcome to check in.

Sunday Morning Coffee Clutch and GSRV Net. The net meets at 9 a.m. local time on 3.860 MHz (LSB). All radio amateurs of General Class or higher are welcome to attend.

SCARC CALENDAR

September 16 Old Plank Road Trail Health Classic. Communications volunteers needed! Please contact Penny, N9TCF if you can help.

Submitted by Michael J. Musiel, KF9SJ

Wisconsin Nets Association Ltd.

NTS TRAFFIC REPORT July, 1995

Congratulations to all who made July an excellent month on the Wisconsin NTS Traffic Nets. With all of the NTS Wisconsin nets reporting, there were 3800 check-ins and 2436 pieces of traffic passed.

The average number of check-ins per net is 18.1 and the average number of messages passed is 11.6. Thanks again to the Badger Weather Net for raising the Wisconsin averages to their lofty levels. The Badger Weather Net (W9AYK N/M) again had the highest totals for the month with 1877 check-ins and 2083 messages passed.

In May, two Wisconsin stations, W9AYK and W9IHW, made The Brass Pounders League. To reach this lofty distinction, traffic totals in excess of 500 points or delivery/orinations in excess of 100.

Wisconsin had ten stations submitting Public Service Honor Roll Reports, and twenty nine stations submitted Station Activity Reports.

A big tip of the hat to all of the stations participating in the nets in Wisconsin. You are what makes the nets. Keep up the good work.

Submitted by:

Arthur A. Evans, KA9KLZ
Wisconsin Section Traffic Manager



Washington County Amateur Radio Club

Tom Waldschmidt, N9LZW,
Secretary
465 Elder Lane
Allenton, WI 53002-9799

Club Repeater: 146.73 MHz



MEETING MINUTES AUGUST 10, 1995

The August 10, 1995 membership meeting of the Washington County Amateur Radio Club was called to order at 7:33 p.m. by Vice President Gary Sutcliffe with 12 members and 2 guests present.

Following personal introductions, the Secretary's report was read by Tom, N9LZW. There was a motion by Paul, W9-SIZ, seconded by Mark, N9UGH, to approve the minutes as read. Motion carried.

The Treasurer's report was read by Dave, KA9RNU. There was a motion by Sherm, W9NGT, seconded by Chris, N9ZES, to approve the Treasurer's report. Motion carried.

Larry, WB9BVB, gave a report on the recent club picnic. Everyone who attended had fun, but, we would have liked a bigger turnout.

Sherm, W9NGT, gave the repeater committee report. The antenna hardware is done. What remains is scheduling a crane

to lower the tower and final tuning of the repeater.

OLD BUSINESS

None.

NEW BUSINESS

Gary, W9XT, suggested that we do another recruitment drive. This would be a general mailing to Washington County hams, which would also announce the changes with the 146.73 repeater. Tom, N9LZW, suggested that enough copies be made to distribute them to businesses such as AES and Radio Shack.

Tom, WD9GGA, reported that his brother has a \$20.00 coupon good at AES that he won't be needing. Anyone who wants it may have it.

With no further business for the meeting, there was a motion by Sherm, W9-NGT, seconded by Larry, WB9BVB, to adjourn the meeting. Motion carried.

Respectfully submitted:
Tom, N9LZW, Secretary.

Following the meeting, Neil Lawton, WK9Q, gave a presentation on buying and selling used equipment. Neil owns Radio Recyclers, located at 7730 W. National Ave, in West Allis. Neil gave us some very good information and advice on the used equipment market.

SEPTEMBER BREAKFASTS

09/02/95, 9:00 a.m., Parkside Cafe, Jackson

09/09/95, 9:00 a.m., Slinger Inn, Slinger

09/16/95, 9:00 a.m., Around The Lakes II, Hartford

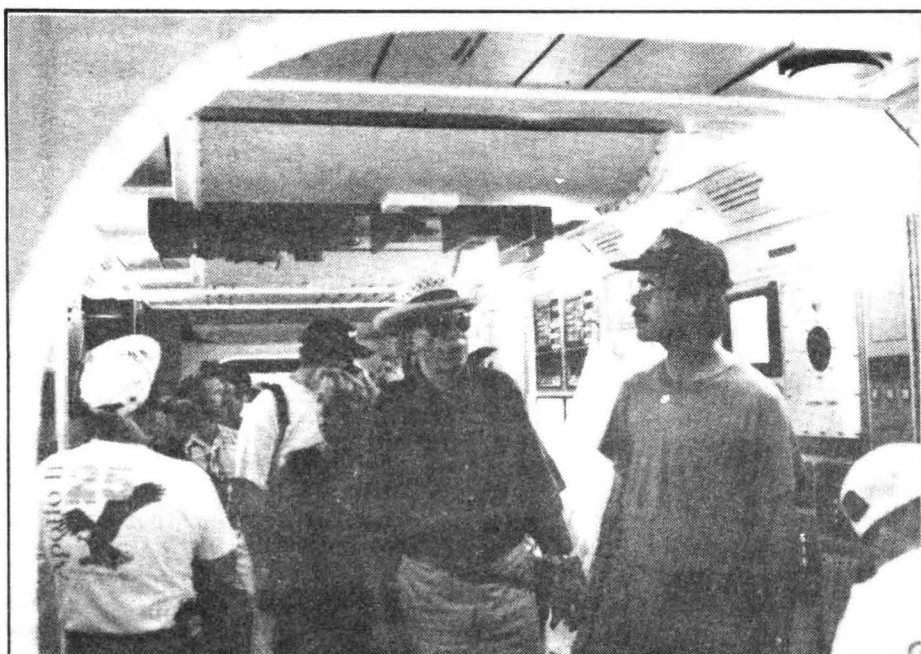
09/23/95, 9:00 a.m., Fay's Restaurant, West Bend

09/30/95, 9:00 a.m., Jimmy's Restaurant, Jackson

Hamfest Business Card Advertisers

Please check the date in your hamfest ad. Is it current? Does it need updating? If so, send the change(s) needed to K9ZZ. The address is in the masthead on page 2 of every issue. And remember, you get one free display ad. It's YOUR responsibility to get it to K9ZZ in time for publication, preferably two months before your event.

NASA Looks to the Future with Space Station Freedom



The National Aeronautics and Space Administration displayed a sample module from Space Station Freedom at the Experimental Aircraft Association's Convention and Fly-In at Oshkosh in late July. The U.S. space station is scheduled to include an Amateur Radio station for the crew to use for relaxation during off-duty hours, for talking with school students, and for the ham/astronauts to talk with their family members who might also be radio amateurs. The lines of folk waiting to see the interior of the module were long, indeed. Understandable: They were seeing into the future.

- BSSS staff photo by Jim Hempling

Racine Megacycle Club

Alex Voss, N9RGX, Secretary

3333 Standish Lane • Racine, WI 53405

MEETING MINUTES MONDAY, AUGUST 14, 1995.

The meeting was called to order by president Paul Smedegaard, N9RGW, at 7:30 p.m. local time. Paul welcomed all of us and asked that each person introduce themselves with name and call.

The Secretary's report was accepted with 2 corrections: Lee, N9VNU's brother's name is Bob, N9BTF (Lee and Bob were operating the club station on Field Day), and the date of the last meeting was reported wrong; the correct day was Monday, July 10, 1995.

The Treasurer's report was accepted as read.

OLD BUSINESS

Cheryl, WS9P gave the special event station report. She had some of the QSL cards for us to look at, and said that most of the contacts came from the east and most of the contacts made were from New York and Pennsylvania. Dave, WB9USI, brought up that we should bring some of the cards to a Salmon-A-Rama meeting so the organizers of the event can see what we accomplished. It was agreed that the Salmon-A-Rama Special Event Station was a success.

Cheryl, WS9P, showed a copy of the WISN TV-12 newscast of us on Field Day. Everybody enjoyed seeing the club's 12 seconds of glory on TV. (Yes, the radio caused some minor interference to their camera.)

Larry, WA9JMO, of the Annual Ham Banquet Awards Committee, brought up the multiple awards idea he submitted to the former Ham of the Year recipients and the seven supporting clubs, and said that he got only one written response and that he had mentioned at this and other meetings, and that he had not had much response feels that there is little interest in pursuing this.

Larry, WA9JMO, also mentioned that with the lower attendance of the Ham Banquet that perhaps we should choose a smaller facility. One suggestion was to look in to using South Hills Country Club. (South Hills has been the location of Field Day and the RACINE HAMFEST sponsored by the Racine Megacycle Club for the past few years). Many other locations were also mentioned.

NEW BUSINESS

Ray, WB9LST, mentioned that he had talked to several hams in the Kenosha area. He made a motion that was seconded that the Racine Megacycle Club change its name to The Megacycle Club. Much de-

RACINE CLASSES

The Racine Megacycle Club will be sponsoring an Amateur Radio license preparation course for anyone interested in obtaining an Amateur Radio license.

Classes will be held every Thursday evening from 7-9 p.m. beginning September 7, 1995.

Classes will be held in room 119, Racine Building on the Racine campus of Gateway Technical Institute, 1001 South Main Street, Racine.

No fee is required.

For more information please send a self addressed stamped envelope to: Radio Class, c/o RMC, P.O. Box 3, Racine, WI 53401-0003, or call (414) 554-7565 extension 5.

bate followed. To change the name of the club we would need to Amend the constitution, change our state incorporation papers, change the name on the club licence, and amend our affiliation with the ARRL. (Not to mention going through another Jacket Fiasco.) Fern, W9LCJ, mentioned that the Racine Megacycle Club is the second oldest club in the state of Wisconsin, second only to the Milwaukee Radio Club. Bruce, K9RRS also brought up the possibility of having satellite clubs all of which would fall under our charter. Rob, KF9ZT also mentioned that we could call the club anything we want, as long as on all legal documents we were the "Racine Megacycle Club."

President Paul, N9RGW asked if there would be an objection to having a committee look in to all of the ramifications of changing the club's name to report back in October of this year. A motion was made to previous motion and seconded. The president then appointed Ray, WB9LST; Bill, NW9P; Bruce, K9RRS; Dave, AA9HL and Bridget, N9XGX to the committee.

Dave, AA9HL, showed the new Racine Megacycle Club letterhead. We now have 1000 sheets with the RACINE MEGACYCLE CLUB printed on them.

Dave, AA9HL also showed off the flyer for the Ham Class sponsored by the Racine Megacycle Club. The Racine Megacycle Club will be sponsoring an Amateur Radio license preparation course for anyone interested in obtaining an Amateur Radio license. Classes will be held every Thursday evening for 12 weeks from 7-9 p.m., beginning September 7, 1995. Classes will be held in room 119, of the Racine Building on the Racine campus of Gateway Technical Institute. No Fee is required. For more information send an SASE to

RADIO CLASS, C/O RMC, P.O. BOX 3 RACINE, WI 53401-0003, or call (414) 554-7565 ext. 5

Dave, WB9USI, said that there will be a Pizza Party at Pias's Pizza on Taylor Ave. for all those who helped at the RACINE HAMFEST.

Bill, W9OVZ, will be giving a presentation on operating QRP, entitled "Why QRP?" All hams are invited to attend. It will be after the September Meeting which is Monday, September 11, 1995 at 7:30 p.m. at the Red Cross Bldg. 4521 Taylor Ave. Racine.

Dave, AA9HL, has tickets for the December meeting on Monday, December 11, 1995 at 7 p.m. The club will meet at the Chart Room restaurant, and then go see the Christmas lights on the Racine Trolley. Tickets are \$11 each. The tickets will be open to Racine Megacycle Club members only. If there are any seats left after the October meeting, then it will be open to non-members.

Dan, KA9OIL, showed the club an isolation transformer that was anonymously donated to the club, and another is

on the way.

The membership was interested in the final score for Field Day. Because we had a computer malfunction and lost 100% of the HF phone contacts, we scored low at 1,726 points.

Kenny, N9WHR, mentioned that there is a new net on the Lake Shore Repeater, W9UDU, 147.270+ MHz. The net is a round table type, and last week it was 1 go around with 37 check-ins. Called the Kenosha Chat Net, it is on Wednesday at 8:00 p.m. A motion was jokingly made to change the name to the Kenosha/Racine Chat Net.

Cheryl, WS9P, gave some information on the Hiram P. Maxim contest, sponsored by the ARRL.

There were two Goodie Boxes this time.

The meeting was adjourned long after it started.

Respectfully Submitted:
Alexander Voss, N9RGX
Secretary

Quarter Century Wireless Association Southeastern Wisconsin Chapter 162

Larry McCalvy, WA9JMO
5400 Six Mile Road
Racine, WI 53402



A picture-perfect day unfolded as the clan gathered for our annual picnic on the 20th of August. Twenty-five picnic enthusiasts enjoyed roasted corn, grilled meats and a great variety of home made side dishes served family style as the Hams talked "radio talk" and the spouses sought and found their own topics of interest.

The fish were "biting" and the comment was heard "I saw that young man catch and release five large bass during the last 15 minutes, that pond must be chucked full of fish!" The truth of the matter is that there is only one fish in the pond, but it is a well trained fish. Another fine, fun filled club function moves into the history files, to be resurrected at a future date when we pore through the photo files of our history books.

Our September meeting will take place on the third Monday, the 18th beginning at 7:30 p.m. The name of the place where it is to be held at is currently eluding my conscious memory. Or, it may not have been decided as yet. Either way, give a listen to our weekly net on Thursday evenings 9:00 p.m., 147.270 Mhz for its location (The Meadow's Restaurant in Franksville has, I believe, the inside track).

Congratulations to Bob Jensen, W0WLN on his upgrade to EXTRA class during the Racine Megacycle Club's Hamfest on the 30th of July. A long, hard-fought struggle has finally been set to rest. Twenty words per minute code is nasty for some of us! And to Terry (Squeeks) Vahovius, N9VKF (Art, W9VSO) who recently

upgraded to GENERAL class (the code was again the villain in this case, Squeeks passed the written portion last fall).

Also congratulations to Marbeth Knoff (Ken, N9NBC) on her first showing at the Kenosha County Fair in crafts. Several first place ribbons for handcrafts; a blue ribbon in the Doily classification, and the Grand Champion Ribbon for her colorful winter coat, numbered among the prizes that went home with her. Ken tells us Marbeth's handiwork is utilized to its full potential; she wears them.

Looking ahead to October and our annual meeting/election brunch, the following club directors are up for reelection -- Fern Fisher, W9LCJ; Ken Knoff, N9NBC; and Bob Jensen, W0WLN.

Our annual meeting will be held at the YWCA, 740 College Avenue, Racine, WI on Sunday the 15th of October 1995 beginning at 1:00 p.m. The Chapter will pick up the tab for all attending members and their guest. Attendees will have a selection of two entrees to choose from. The choice entrees, at this time, still have to be chosen. Listen on the Thursday evening net for pending details.

At this writing, the Chapter is still anticipating our trip up to Oshkosh for the All-Wisconsin social/dining meeting of the state's three QCWA Chapters, "55", "162" & "174". Look in next month's BSSS for a pictorial and written detailed report on the function.

73, Larry McCalvy, WA9JMO

John's Book Shelf

By John W. Frank, WB9TQG
21 Hastings Circle, Madison, WI 53711-3930

Author Brad Wells, KR7L, packs a lot of information into five chapters of his book, *Your QRP Operating Companion*. Chapter 1, titled "Why Run Less Than the Legal Limit," explains the QRP philosophy. Chapter 2, "What do I Need," covers the equipment basics for your shack. Chapter 3 stresses the importance of hood operating techniques as an alternative to high power. Chapter 4 consists of 24 pages devoted to propagation. All the HF bands from 160 through are described in terms of what the typical QRP operator might expect from them. Chapter 5 deals with maximizing your signal. Choosing the right type of antenna and feeding it with low-loss coaxial cable are two of the topics covered, along with the importance of accurately measuring how your equipment is working.

Appendices include a list of QRP clubs and nets, followed by a list of contests with QRP categories. Clubs, nets, and contests come and go, so these lists might be slightly dated. They do, however, serve as a good starting place in a search for QRP activity.

Your QRP Operating Companion is written in terms which should be easily

understood by most hams. You won't be burdened by foot-long equations from differential calculus or frustrated by construction projects that require components available only from a remote outpost of Upper Lumania. Actually, there are only two schematics in the entire book. That's because this is an operating companion, not a guide to homebrewing your own QRP station. Cartoons by Bob Beasley, K6BJH, illustrate each chapter and entertain the reader along the way.

Who would I recommend this book to? QRP enthusiasts would learn from this book, and non-QRPers might find the chapter on QRP interesting.

Is there anything I don't like about this book? Well, there may have been a lack of communication between the editor and the printer because the copy I bought had an error in the table of contents. The titles of chapters 4 and 5 were reversed. What the heck, if that's the worst thing that happens to me this month, I'm not doing too badly.

Your QRP Operating Companion is published by the ARRL, and carries a cover price of \$6.00.

Read on!

Red Cedar Repeater Association, Inc.

Steve Hart, KA9OMC, Secretary

E616 810th Avenue

Knapp, WI 54749

2-Meter Repeater: 146.01 Input/146.61 Output

Greetings, sponsors and guests.

Thanks to all who participated in our storm watch nets this month. Lightning and flooding appeared to be our worst enemies.

Congratulations to Chuck, KG9CT, at Spring Valley, for his recent Extra upgrade. Chuck is planning on obtaining an HF beam and erecting a tower yet this fall.

Ron, WB9WKO, reports a good showing at the annual Boyceville Fly-In, and extends his thanks for the help to the amateurs provided help in setting up a portable tower for communications.

Chuck, WD9GHW, in Polk County, has been in touch with the RCRA, and

looks like he will be assisting in the concepts of putting up a repeater in that area. Good luck, Chuck.

We are happy to hear the North Star Trader Net Manager Ken, W5NKT, is on the mend and expects to return to the net this fall. Join the net on Sunday mornings at 8:30 a.m. on 3.913 MHz for some real swap shop fun.

Please note our first fall social hour will be September 26 at the Peppermill Restaurant in the T-Bird Mall, Menomonic. Meeting time is 7:30 p.m.

73.

Steve Hart, KA9OMC
Secretary/Treasurer RCRA

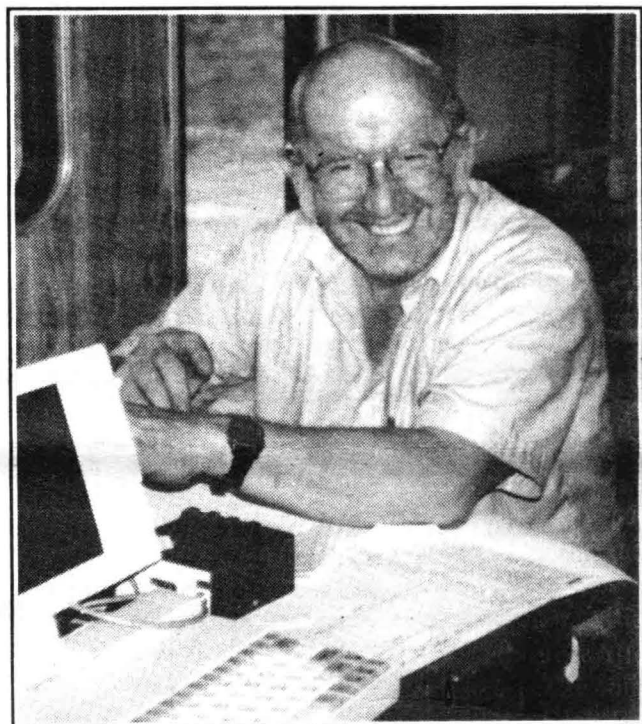
Fox Cities Amateur Radio Club Field Day Fun

Tired of Snail Mail Delays? Check the Deck!

If you are a club secretary, or if you simply have something for BSSS, and you want it to get here with minimal delay, send it with your little modem to the RF Deck landline BBS here in Baraboo at (608) 356-4777. On your initial logon, set your parameters, including file transfer protocol (Y Modem, Z Modem, etc.). If you have only a message, send it in ASCII ONLY to the proper message area on the menu you will see. If you have a text file (it can be ASCII, Word Perfect, or any word processing format), change to the File area. Select File area 5, the BSSS Upload Area. Select Upload. Then, using whatever communications program you use, dump the file to the BBS. Please note that the download area will NOT be visible to you; only four BSSS staffers have access to that area to download your file. Several clubs use this method, and it works well. The clubs include the Racine Megacycle Club, The Sheboygan County Amateur Radio Club, the Central Wisconsin Radio Amateurs, and the Wisconsin Amateur Packet Radio Association. You can, too. If you have problems and can't determine what you are doing wrong, leave a message for SYSOP Steve Schulze. Steve is an amateur, and his call is N9UDO. He will post a reply to you and help in any way he can. Thanks!

Bob Thorne, K9DAF, was the QRP CW operator for the FCARC Field Day 1995 operation. From his expression, he had fun, and probably managed at least a KiloQSO.

- Photo courtesy Maury Mead, W9FBC

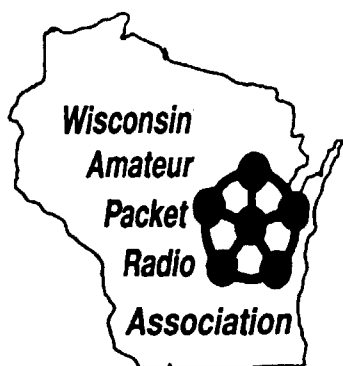


The Beginning of Cooperation in Space

This photo was taken of the combined crews of the U.S. Space Shuttle Atlantis and the Russian space station MIR following the successful docking of the two orbiting craft in July, 1995. The combined earth weight of the two craft while docked was more than 200 tons of orbiting machinery and humans. The docking was the first of many scheduled between Atlantis and MIR as a much-overdue era of Russia-U.S. cooperation in space exploration and research begins. Several of Atlantis' crew members on this mission (STS-71) were hams, as was the U.S. astronaut who spent three months aboard MIR. He was taken into orbit and MIR aboard a Russian Soyuz spacecraft. Atlantis took Russian cosmonauts to MIR, and returned with the U.S. astronaut and a cosmonaut or two.

- NASA photo





THE WISCONSIN PACKETEER

Wisconsin Amateur Packet Radio Association (WAPR)

Bob Gedemer, KA9JAC

609 Wilson Street, Neenah, WI 54956

Andy Nemec, KB9ALN, Editor, 1250 Main Street, Green Bay, WI 54302

News from WAPR for September

In the "Luck would have it" department, the last 2 installments of "Using the Wisconsin Network" featured a trip to Milwaukee from Green Bay. It was a very nice trip, and would have been possible when I wrote that. A few things have changed since then.

First, the node stack in Plymouth (near Sheboygan) is no longer in service. This is because the operator, Al, NF9R is moving. Al has had a bit of a change in life recently, and one that deserves our congratulations. He is newly married, and is relocating his household.

Al is trying to, as time permits, relocate the BBS and Node Stack. There is no word on if, and/or when the system will be operational. Along with our congratulations, we also have to thank Al for all the effort he has put into the system. His was a first-class system that has been a valuable service for years, has been a major packet mail forwarding point for Northeastern Wisconsin, and it has taken a lot of finagling to try and fill the void since his absence. Thanks for all of your efforts, Al.

Another major development has been the shutdown of WB9TYT's node stack in Milwaukee. You may recall a year ago. He had to move the stack from his brother's that Dan actually planned to shut the stack down about house in Slinger. Well, we in Wisconsin surely got an unexpected bonus when Dan relocated the stack to his home. He kept it going for months after it's expected absence, and we all greatly appreciated it.

I recently had the occasion to talk to Dan when he was on his way up North to do some fishing. At the time, he said that he is just plain tired and wished that someone else would take up where he left off. You see, Dan has been at it for more than 10 years, and has provided quite a service to the packet community in Wisconsin. Now, he wants to go fishing, and wants to enjoy the hobby from the user's point-of-view, rather than from that of a provider. I, for one, will certainly miss Dan's system, and sure hope he doesn't become a stranger. He is also kind of shy about this kind praise, so do me a favor. If you hear Dan, or see him about town at any of the ham functions, say thanks, wish him well, and good luck fishing. He deserves the thanks, and probably the fish, too!

And this begs the question, Who in Milwaukee can fill those big shoes?

As much of a void as the absence of these two gentlemen has left, there is still good news all around us. The expansion of the network to the north is coming along quite nicely. There is now a LAN node in Crivitz, Wisconsin on 145.770. This node, and the UHF 9600 baud Backbone node connected to it, replace the former node WICRIV that was operating on 145.010. The new LAN node is WIMAR:KE9LK-6, the backbone node is #446CR:KE9LK-8.

As good as that is, it gets better. This node is a great halfway point between Green Bay and Iron Mountain, Michigan. Guess what? There is now a 9600 baud UHF node connected to the node stack in Iron Mountain, too. Keyboard-to-keyboard connections into the Upper Peninsula of Michigan are now reliable and startlingly quick! And one more addition to the BBS network has made mail forwarding more reliable to the UP. Green Bay has seen the addition of a BBS. GRBBBS:KB9ALN-5 has been put on the air and is functioning nicely. This has truly been a community effort, right down to the parts assembled for the computer used in the BBS. It gets it's feed from KA9JAC in Neenah, and in turn feeds N9GHE in Manitowoc as well as KC8VC in Iron Mountain.

But enough about the North End of the State. There are some nice folks in Central Wisconsin that would like you to know they are out there, and more than willing to type with you. I received a note from Guy, KF9XX and he asked that I introduce the Marshfield Amateur Packet Society to you.

To get to them, find a path to KC9NW-1 and connect to the KA-Node GIGI (KF9XX-1). Then XConnect to any one of the following folks: Morgan N9UOR, Craig N9JPL, Jim KF9MN, Bob WA9BVZ, Guy KF9ZZ, Verlyn WB9VCT, Randy AA9BN, Craig K9CKA, Keith AA9NC, Dan

N9XZS, or Jerry WB9WBN. So, strike up a chat with one of these folks!

One more thing that Node Op's and BBS op's should please take a look at and please take the time to fill out. Steve's (KE9LZ) frequency coordination application and note speak for itself, and I can't add anything to it that he hasn't already said.

That's all for this month's news. As always, send your news via the US Mail to: Andy Nemec, 1250 Main Street, Green Bay, WI. 54302. Packet Mail is now KB9ALN@KB9ALN.#GRB.WI.USA.NA. Drop me a line! 73, Andy.

Using the Wisconsin Network - Part 7

by Andy Nemec, KB9ALN

Part 6 of our series found us completing our journey from Green Bay to Milwaukee. We made a brief layover in Manitowoc, and discovered just how to plod along via a backbone. In the course of our travels, we have found how to identify these backbones, and have discovered just how to determine where they lead. Now, we find out how to make our connections both faster and more reliable.

We have learned how the "Routes" command can give us the general layout of a nodestack, and how this is important in determining just how successful a link will be. Now we will discover a shortcut.

First, let's remind ourselves of the nature of a network, and the basis of the network node. Remember that a network is essentially a collection of intelligent digipeaters. They try to get a packet to a particular destination, and try to verify that it has arrived. But a long path of networked nodes leads to an interesting situation. Consider the way in which a network of nodes actually operates in the example below.

You are traveling through 5 nodes to get to your friend's station a long distance away. You probably realize that a network of backbone nodes is used in your connection, and they are. Because the Backbone Node aliases are prefaced by a # sign, you will not see them with the "N" command. Assume that his LAN node shows up on your LAN node's Node List. Here is the path:

```
Your -> WAPR1 -> #WAPR2 -> #WAPR3 ->
Station LAN Backbone Backbone
#WAPR4 -> WAPR5 -> Your
Backbone LAN Node Friend
```

Your logical course would be to tell your LAN node, WAPR1, to connect to your friend's LAN node, WAPR5. Then you would tell it to connect to your friend's station. The problem is, you are going through 5 nodes over a long distance. Worse yet, you really don't know that the Backbone nodes exist until you plod along with the Routes command, because they are "Hidden" backbone nodes. Normally, you would not worry about the backbone nodes, because most of the time, the connections are all "automatic".

You have noticed, however, that your packets seem to take forever to reach your friend. All of the sudden, you have a keen interest in the path used. You want to see if there is a better path, or a more reliable way, to make the connection. Nodes try to make a connection over the best possible path, but are subject to all sorts of problems when they do. One of these problems is related to how a node makes a connection. Remember, a network of nodes is really a network of sophisticated Digipeaters, and that is how they maintain a connection over a long distance.

When you connect up to your LAN node, WAPR1 and tell it to connect to your friend's LAN Node, WAPR5, a lot of behind the scenes stuff goes on. First, your LAN node knows that the way to WAPR5 is through #WAPR2. It connects up to #WAPR2 and, in effect, says "I have a connect request for WAPR5 from a user at WAPR1". #WAPR2 knows the route to WAPR5 is through #WAPR3. #WAPR2 says "I have a connect request for WAPR5 from a user at WAPR1". #WAPR3 knows that the route to WAPR5 is through #WAPR4. It says to #WAPR4, "I have a connect request for WAPR5 from a user at WAPR1." #WAPR4 knows how to get to WAPR5, and says that is has the connect request from a user at WAPR1. WAPR5 acknowledges, and sends the acknowledgement to #WAPR4.

This acknowledgement is sent, "bucket-brigade" style, back to WAPR1. A "Circuit" is established, and each packet is sent in a numbered sequence to help keep track of it. This will make certain that each packet will arrive, theoretically.

So far, so good. But there is a problem with the way that nodes are commonly networked. Each packet requires an "End-to-End Acknowledgement". Remember, in an effort to make sure that packet radio is "Error-Free", each packet must be "Acknowledged", verified that it has been received correctly. "End-to-End Acknowledgement" means that if one station does not hear a packet, it must be repeated from the originating station. This is very similar to raw digipeating. One end of the connection sends a packet, this packet is sent along through each node, and arrives at the other end. The acknowledgement packet is sent back to the originating node through each node that passed the original packet. To use our example, if #WAPR3 does not hear a packet from #WAPR2, WAPR1 will have to send the packet again if it does not get an acknowledgement within a certain amount of time.

If one of the backbone-to-backbone node links is marginal, or perhaps subject to some interference, then the packets seem to take forever to get to their intended destination. This is because each packet has to be re-sent along the entire path. It also has to be acknowledged along the entire path. Even if the packet arrives, safe and sound, the originating node must know that it has arrived. Re-sending the acknowledgement wastes time, too.

Now that we know why a particular node path might be bad, we can do something about it. By now you are familiar with the "Nodes" command. But you may not know you can use a variation of it to find out just how good of a connection is possible to a particular node "destination".

The variation is simple. If you need to know the how WAPR1 tries to get to WAPR5, just ask it by typing:
N WAPR5

You may see something like this:

```
WAPR1:W9XYZ-5} Routes to WAPR5:W9XYZ-9
232 2 0 #WAPR2:W9XYZ-6
152 5 0 #WAPR3:W9XYZ-7
```

The variation is simple. If you need to know the how WAPR1 tries to

get to WAPR5, just ask it by typing: What does it all mean? The first column of numbers (232 and 152) N WAPR5 indicate the route quality number - the higher the better. The You may see something like this: second column is the "Obsolescence Count". This is a measure of WAPR1:W9XYZ-5} Routes to WAPR5:W9XYZ-9 how long ago a node broadcast was heard, and when it will be 232 2 0 #WAPR2:W9XYZ-6 dropped from the node list. The third column is the "port" 152 5 0 #WAPR3:W9XYZ-7 number. Port 0 is the direct radio port, port 1 is a wireline to another TNC on a node stack.

You can find out, node by node, how the route quality is for each step of the journey from WAPR1 to WAPR5. You may wish to use the "Info" command to find out where each node is, and then plot your progress on a map. You may find, for some reason, that a route between two nodes is much weaker than the rest of the path. Here is where you can "Segment" the circuit.

When you "segment" the circuit, you make a manual connection between 2 backbone nodes. Why? Because acknowledgement is made directly between nodes, along a node-to-node circuit. As the proverb goes, a chain is only as strong as it's weakest link. If you let the nodes at the weakest link acknowledge to each other, the weak acknowledgement is concentrated in one spot - the weak link is made stronger. Rather than having an acknowledgement repeat through 5 nodes, it is only repeated between 2. Fewer repeated packets means a quicker, and a more stable connection.

Circuit segmenting is not a revolutionary technique, but it will make your network connections better. Next month, we will discover some other useful node commands that will help you navigate through the network easier. Until then, 73.

THE TESTPOINT

(continued from page 3)

tain one. No appointments are necessary to take exams. For further questions, please leave a message on the mailbox or phone me at (608) 832-6631.

Mark Jenks, NZ9B

RIVER FALLS, WI

Held in the church basement at the United Methodist Church, 127 South 2nd St., River Falls, WI. Contact: Chuck Kelly, KA9YRV, 234 W Cascade Ave., River Falls, WI 54022.

REDGRANITE, WI (W5YI VEC)

Test sessions are held in Redgranite on the second Saturday of each month, at the Civic Center, 202 Pine River rd., just off Highway 21. Testing begins at 9:00 a.m. Breakfast meeting at 8:00 a.m. at the Cirve on Highway 21 prior to testing session. All Amateurs are welcome at the breakfast. Contact Terry Lynn Witt, AA9BA, 9145 Ivy Lane, Berlin, WI 54923.

RACINE, WISCONSIN - ARRL/VEC

Monthly - first Saturday, except January, July, and August.

Monthly exams are given 9:00 to 11:00 a.m. at the Red Cross Building, 4521 Taylor Avenue, Racine. Walk-ins are permitted.

Inquiries and registrations should be directed to William Firchow, Jr., NW9P, 1912 27th Street, Kenosha, WI 53140, telephone (414) 658-8390.

TOMAHAWK, WI

Last Saturday of every month. Jan. thru Oct.

Tomahawk Volunteer Examiners (ARRL/VEC). Tomahawk, WI. No preregistration required, but appointment would be appreciated. Registration at 8:30 a.m. and testings starts at 9:00 a.m. For location or other information, inquire on 145.43 MHz. repeater or contact: Terry Collins, KB9AUP, W6564 Highway 8, Tomahawk, WI 54487. Telephone (715) 453-4633.

APPLETON, WI - ARRL/VEC

MANITOWOC, WI (HAMFEST)

KAUKAUNA, WI (HAMFEST)

Conducted by the Fox Cities ARC VE team. All test session in Appleton are held at James Madison Jr. High, 2020 S. Carpenter Street. Candidates check in between 8 and 9 a.m. with testing starting at 9 a.m. No walk-ins after 9 a.m. Contact George R. Croy, W9MDP, 2113 Twin Willows Drive, Appleton, WI 54914. (414) 730-0967.

MENOMONIE, WI

The Menomonie VEC will be sponsoring exams from 9:00 to 11:30 a.m. at the UW Stout Communication Center, 820 South Broadway, Menomonie, WI. Use the north entrance. Walk-ins only. Contact Jim Ley, NX9F. Work: (715) 232-1397, Home: (715) 235-3998.

MARSHFIELD, WI (ARRL/VEC) Sponsored by the Marshfield Area ARS. Held at St. Joseph Hospital, 611 St. Joseph Ave., in the 1 West classroom located adjacent to the Westwood Cafeteria on the main floor of the hospital. Use the main entrance or any other entrance and follow the signs to the cafeteria. Registration starts at 8:30 a.m. with testing starting at 9:00 a.m. Talk in on the 147.18 Marshfield repeater. Walk-ins welcome. Contact: Walter Friant, WBOKIN, 2310 Wallonie Drive, Marshfield, WI 54449 (715) 387-3870.

GREEN BAY, WI (ARRL/VEC)

Contact N9NOF, Keith Summers, 918 Bluebird St., De Pere, WI 54115. (414) 336-6087, after 4:00 p.m.

FOND DU LAC, WI

Sponsored by the Fond du Lac Amateur Radio Club. From 9:00 a.m. to Noon at the Community United Methodist Church located at 701 Minnesota Ave., in North Fond du Lac, WI. All level tests, walk-ins welcome. Contact: Doug Schultz, N9EZF, (414) 992-3088.

MEDFORD, WISCONSIN

Sponsored by the Taylor County Area Amateur Radio Club (ARRL/VEC affiliated). Saturday, October 21st. Testing for all classes, Novice through Extra. Registration starts at 8:30 AM, testing starts at 9 AM. Location: the conference room in the lower level of the Sheriff's annex to the Taylor County Courthouse, corner of 2nd and Ogden Sts., Medford, WI. Take Ogden St. west off of Hwy. 13 to the courthouse. Park in the lots on the east or south sides of the courthouse or on the street. PLEASE use the entrance on the south side of the courthouse and watch for the signs. Talk-in on the 147.15(+600 kHz) repeater. Walk-ins welcome, however, if you know you'll be attending, it would be appreciated if you call ahead. Contact: Tom Hrdina, N9GEN, 2373 Willow Ave., Medford, WI 54451, phone (715) 748-4054.

CEDARBURG, WI - ORC HAMFEST

Yellow Thunder Amateur Radio Club

WB9FDZ (Original Club Call) • K9ODK (Robert L. Prine Memorial Call)

Raymond J. Matlosz, N9MLZ, Secretary

450 West 2nd Street • Reedsburg, WI 53959

The August 16, 1995 meeting of the Yellow Thunder Amateur Radio Club, Inc., was called to order at 8:12 p.m. by Bob Sauvan, WT9Q. The meeting was preceded by a fox hunt.

The minutes of the last meeting, as published in the BSSS, were accepted. There was no financial report.

OLD BUSINESS: There was no new news to report on banners. It is hoped that by next meeting more information will have been obtained upon which a decision can be made.

NEW BUSINESS: Steve Schulze, N9UDO brought up the issue of the need to find a new meeting place if the Baraboo Civic Center becomes available. He obtained a quote from the Voyager Inn. Members discussed other possibilities and locations. Bob Suavan read a letter he received from Bill Aspinwall, W9UGT soliciting applications from or on behalf of handicapped radio amateurs for HF equipment that will be donated to a handicapped ham from a Madison area handicapped ham who recently became a silent ham. Bob Suavan talked briefly about the field day results. Wayne Burgess, N9UDX presented his application to become a member of the club and was voted in by the members present.

Nominations were made for club officers. Bob Suavan declined to run for another term as president. Steve Schulze was nominated for President, Bill Hommel, KA9QFJ for vice president, Raymond Matlosz for secretary and Bill Decker for treasurer.

Two teams of hams participated in this evenings hunt for the two foxes. K9ZZ organized this evening's

hunt and was found by Steve Schulze and party, who also found the other fox(es) hiding in the club's meeting room. Jim Paul, N9LKY was having some technical difficulties with his equipment and was unable to locate either fox, thus the Steve Schulze party were tonight's winner.

Buck night winner was John Hansel, WB9TIG, who didn't get the buck cause he wasn't there.

The meeting adjourned at 8:40 p.m.

The next meeting will be held Thursday September 14, 1995 at 7:30 p.m. at the Baraboo Civic Center. Following the meeting will be a program on VHF contesting.

Sincerely,

Raymond J. Matlosz, N9MLZ, Secretary

The following members and guests were present:

Robert Sauvan	WT9Q	Sauk City
Domenic Bianco	KA9QFK	Reedsburg
Bill Hommel	KA9QFJ	Baraboo
Steve Schulze	N9UDO	Baraboo
Jim Paul	N9LKY	Merrimac
Art Kleefisch	W9WSS	Baraboo
Raymond Matlosz	N9MLZ	Reedsburg
Ken Ebner	K9EN	Portage
Allan Johnson	AA7CS	Fort Atkinson
Wayne A. Burgess	N9UDX	Madison

"EUROMIR 95" mission beginning September 2, 1995.

Reiter will use the 2-meter FM rig aboard Mir during the 135 days planned for his flight. Primary frequencies to be used (preferably in split mode) are 145.800, 145.550, and perhaps 145.200 MHz.

QSLs for DPOMIR should be sent to DARC QSL bureau.

NNNN

FOR SALE: Yaesu Ft990 Xcvt, FL7000 solid state amp, SP-6 external speaker, MD-1 desk mic. 2yrs old, A-1 shape, up and running at my QTH for demo and try out. Package deal only. Yoy pick up. \$2,800.00. KB9IVP, Oconomowoc, WI (414) 567-2633.



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MARSHFIELD, WI - HAMFEST
OAK CREEK, WI - SMARC HAMFEST
RACINE, WI - BIG BOY TOY SHOW
RHINELANDER, WI - NWARC SWAPFEST
IL - RARC HAMFEST
ROTHSCHILD, WI - WVRA HAMFEST
SOUTH MILWAUKEE, WI - SMARC HAMFEST
STEVENS POINT, WI - CWRA SWAPFEST
WAUKESHA, WI - KMRA SWAPFEST
WAUKESHA, WI - MIDWINTER SWAPFEST
DUBUQUE, IA - HAMFEST

See the Swapfest column for additional information and contact persons.

GREAT RIVER AMATEUR RADIO CLUB

DUBUQUE, IOWA - ARRL/VEC

The Great River Amateur Radio Club VEs are now field stocked, which means retests can be given immediately.

Exams are held at 9:00 am at the Central Fire Station, 9th and Central in Dubuque. Use the basement entrance on 9th street. For more info, contact: Carl Clark, NOKAX, 145 Delicia Drive, Dubuque, IA 52001. Or call Carl at 319-557-9149. Talk-ins are on the 147.84/24, 147.63/03 and 146.295/895 repeaters.

LOVES PARK, IL

Third Saturday of every month. Northern Illinois Volunteer Examiners (W5YI VEC). Held at North Suburban District Library, 6340 North Second St. (Hwy. 251), Loves Park, IL. Contact: Dennis G. Eksten, W9SS, (815) 877-6768.

This section of Badger State Smoke Signals is available to publicize your Volunteer Examiner Amateur Radio license examination schedules. Please send us your schedules of dates, times, and locations that you will be conducting examinations and we will include the information here. Be sure to include contact address and any other necessary requirements. Information should be sent to K9EN at the address shown on page 2.

ZCZC AS91

QST de W1AW

Space Bulletin 012 ARLS012

From ARRL Headquarters

Newington, CT August 23, 1995

To all radio amateurs

SB SPACE ARL ARLS012

ARLS012 Amateur radio on Mir

German Cosmonaut Thomas Reiter, DF4TR, will join the Russian space station Mir, and operate signing DPOMIR, during the European Space Agency's

The Badger State Smoke Signals Shopper's Guide

SWAPFESTS



1995 WINNERS:
Timothy J. Czerwinski, WO9U, Chetek
Steven D. Miller, KB9DPE, Spooner
Karen M. Schneider, N9SVA, Appleton

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(414) 762-3235

Extension 58

P. O. Box 102

South Milwaukee, WI 53172

Fox Cities Hamfest

November 5, 1995

Starlite Club, Hwy. 55 north of Kaukauna

HAMFEST INFO:

Dan Vanevenhoven, N9LVS
2410 E. Newberry Ct.
Appleton, WI 54915
414-739-5101

EXAM INFO:

Larry Siebers, KD9IA
414-788-3823

Lakeshore Hamfest

& Computer Swapfest

Manitowoc County Expo

Intersection of Hwys 42-151 and I-43 on Cty Highway R

For more information, call:

Glenn, AA9MT: 414-684-7096
Red, N9GHE: 414-684-9097 (Nights)

ManCoRad Radio Club • P.O. Box 204 • Manitowoc, WI 54221-0204

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Ozaukee Radio Club 17TH ANNUAL RADIO AND COMPUTER SWAPFEST

8 a.m. to 1 p.m. • Circle B Recreation Center
Intersection of Highway 60 and County I
Exams by Badger Examiners, c/o Gary Sharbuno,
5119 W. Willow Rd., Brown Deer, WI 53223
Swapfest sponsored by Ozaukee Radio Club
11448 N. Laguna Drive • Mequon, WI 53092

Kettle Moraine Radio Amateurs SWAPFEST

Sunday, October 15, 1995

Waukesha County Expo Center

Info: KMRA Swapfest S46 W32264 Highview Rd.
Waukesha, WI 53188-9276

Red Cedar Repeater Association, Inc.

AUCTION

February 27, 1996 • 7:00 p.m.

American Legion Post 53 • 634 Water Street
Eau Claire, WI

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Steve Hart, KA9OMC
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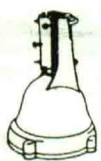
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